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THE WEEKLY MEDICAL REVIEW.

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THE WEEKLY MEDICAL REVIEW.

VOL. X. NO. 1. CHICAGO AND ST. LOUIS, JULY 5, 1884. TERMS: $3 A YEAR.

ANNOUNCEMENT.

The publishers announce, with satisfaction, the completion of arrangements by which the field of usefulness now occupied by the REVIEW will be greatly enlarged in the near future, in so far as to embrace an obstetrical department, to be in charge of Prof. Geo. J. Engelmann, A. M., M. D., as Editor-in-chief. The reputation of Dr. Engelmann, as an obstetrician, and accomplished writer upon diseases of women, is so generally recognized, not only in this country but throughout continental Europe, that the publishers congratulate themselves and their patrons in being able to secure his direction of this department of the REVIEW. In its conduct he will be aided by a distinguished staff of collaborators selected from among the most eminent gynecologists in Europe, and America, and whose names will be announced upon the return of Dr. Engelmann from abroad, next October.

In thus enlarging the scope of this journal, and its size so as to afford subscribers two papers within one cover, it is purposed also to enlarge its designation, so that after January 1st, next, the paper will be known as THE WEEKLY MEDICAL REVIEW AND JOURNAL OF OBSTETRICS AND DISEASES OF WOMEN. Although within one cover the publication will practically include two journals, each with separate title page, and running pages, thus enabling them to be bound separately, as the respective volumes are completed.

The features that have hitherto characterized the paper will not be encroached upon, by the extension of its field, and its recognition of the general departments of medicine will continue ample as heretofore. Its editorial conduct is expected to be more vigorous and forcible, and in comprehensiveness of news presentation improvements will be manifest.

The increased value of the REVIEW to its very large constituency of readers will entail upon subscribers a merely nominal increase in price—Subscription after Jan. 1st, and for 1885, being placed at $3.50—and this although the pecuniary outlay of the publishers will necessarily be considerably augmented by the establishment of the Obstetrical Department upon so large a scale. This additional department will not only embrace editorial articles and comment, with a great variety of original papers, by distinguished writers, concerning this important branch of the profession, but the transactions of the various obstetrical societies of both continents will be duly and faithfully reported, as their importance to the profession warrants.

In thus enlarging the size and scope of the paper and increasing its value to the profession at large, the publishers anticipate and expect the heartiest co-operation of subscribers.

It is our aim and purpose to make the REVIEW the best and most deserving journal of its class in this country, at whatever pecuniary cost to ourselves, and to effect this ob-

ject the largest measure of co-operative patronage is no less essential than welcome.

A Useful Application of Condoms.—The late Dr. Sherman, of Chicago, used constantly to employ condoms when he wished to sustain a persistent application of cold or heat to the vagina and a more convenient way can scarcely be devised. His method was to introduce into the mouth of the condom a double perforated cork, and through one perforation to introduce an elastic catheter nearly to the end of the condom, and a second tube which served as a return way of the fluid, hot or cold, was merely introduced just to the level of the cork. The cork was then fastened into the condom and the necessary tubes for the introduction and return of the fluids attached. A constant application of either heat or cold could thus be maintained without any inconvenience whatever to the patient. Since it has been shown by several observers of late that a persistent temperature of about twelve degrees above the human body is very destructive to specific-virus this method of applying constant heat to the vagina may be of extensive utility.

Another ingenious application of the same weapon has been suggested by an English Army Surgeon, who, by the way, is so modest that he dares not use the word condom, but calls it, "An article of 'French' manufacture, in common use, but usually applied to a less laudable purpose." This phraseology may be poetical or in medical literature it might even be called prudery. Nevertheless the device is a good one. It consists of an application of the condom to arrest hemorrhage from the nose. For this purpose the condom is tied to the end of a small flexible catheter and a piece of rubber tubing and a convenient clamp connected with the catheter. The condom is then lubricated and introduced into the nostril from which the bleeding proceeds. The whole being in place the condom is inflated with air or charged with water according to the desire of the medical attendant. This suggestion was made as a result of reflection over an unsuccessful case of plugging the nose in the usual way. Experiments on the cadaver demonstrated that theoretically it ought to answer well.

Subnitrate of Bismuth has frequently been suspected and sometimes been proven to contain quite perceptible quantities of poisonous impurities. As it is coming into favor somewhat extensively not only as an internal medicine but also as a surgical dressing after important operations and as a dressing for various affections of the skin, the exactness of the day has already drawn attention to the necessity of insuring greater purity in the officinal preparation. It is not necessary to dwell upon the importance of this question. If poisoning or injurious effects occur after the use of bismuth, we of course desire to know whether it is the bismuth itself or its impurities; moreover, if we desire benefit from its internal use it is just as necessary to know whether it is the bismuth itself, to which we are to attribute any change, or to the more violent impurities often associated with it. A prize has lately been awarded to an essay setting forth a plan of preparing an absolutely pure article, and we doubt not that the preparation will be secured by our best pharmacists and that our most careful physicians will require it in their prescriptions or in their bottles for office use. The process involves quite a good deal of care and careful manipulation and the finished article will necessarily be a good deal more expensive. But the preparation is said to be of a snowy whiteness and absolutely pure.

The Index of the Review is sent to the subscribers with the present number. As it is one week later than it should be, we ask all who intend binding the journal to bear in mind that the present number is not included in it. It contains the index of all the issues from Jan. 5, to June 28, inclusive. The present number is the first of Volume 10.

Volume Ten of the Review begins with this number. The present management has been conscientious in endeavoring to give the

readers of the journal the worth of their money. Whether this has been done or not, or whether the REVIEW has improved or deteriorated, we leave our readers to judge.

AN EXCELLENT SUGGESTION is made by Dr. George L. Porter (New England Medical Monthly) to the effect that a permanent committee be created in all State medical societies, charged with the duty of opposing—save for good or satisfactory reasons—all changes or repeals in the medical laws of the State. In the present condition of affairs, if a law which we regard as essential for the welfare of the community, as, for instance, the Vaccination Law, is assailed as in Connecticut, by those professing to believe it unjust and injurious, and the committee is requested by plausible speakers and wonderful statistical reports (so called) to repeal it, the profession has no recognized method of defending the enactment, which we believe to be just in spirit and wise in its provisions, and the defense, if it come at all, must be given by the individual efforts of its members. This is an ill-organized and weak position for the society, and far inferior to that which it would hold, if its opinions were defended by a permanent committee, effective in influence of members and personal reputation, the term of whose membership extended over different years, and who are informed of the history of the development and the passage of the several medical laws.

THE IMPORTANCE OF PRELIMINARY EDUCATION to those entering upon the study of medicine cannot be overestimated. The necessity of it is sufficiently appreciated in this country, but unfortunately our system of government prevents the application of those stringent regulations in force all over Europe. As long as medical schools continue to be mere business speculations and advertising schemes, there will be no real progress in elevating the standard of medical education, the few colleges that are honest in their efforts in that direction cannot compete for students with their numerous and unscrupulous rivals. We have never as yet heard of a student who could neither write nor read being graduated from a medical school, but venture to say that in nine-tenths of our colleges the possibility of such an occurrence is susceptible of proof.

In a laureate address at the recent commencement of the University of Cincinnati, Rev. Dr. Isaac M. Wise touches upon this subject in his usual concise and forcible style. he says:

Young men begin the study of medicine or law as they would begin to learn an ordinary trade, unprepared to reason logically, to think scientifically or to handle a subject methodically. Then they learn that which is absolutely necessary for the medical or legal profession without even the opportunity of any scientific training, any classical or philosophical acquirements, so that young physicians who cannot reason scientifically and young lawyers who cannot speak logically, mere professional mechanics, in very numerous cases, are sent forth and in such large numbers that competent men and scholars are put into the shade by the tricks and quackery of uncultivated minds, who, by sheer necessity, are compelled to appeal to ignorance and sensational manipulations. There is no wisdom in their understanding, and their professions stand below ordinary mechanics' trades in the estimation of fair-minded men. The same is the case perhaps in every one of those branch colleges. They lack the philosophical, classical, scientific and historical training which makes the scholar and gives to the professional man a respectable standing among the intelligence of our people. * * *

It is a mistake of modern utilitarians and realists that men should become one-sided specialists, and learn only that which promises bread and butter. It is that very mistake which makes so many incompetent and one-sided people, so many "cranks." Your branch colleges can educate, or rather, train and drill, a one-sided bread and butter brigade. The university can educate universal men.

THE AMERICAN MEDICAL ASSOCIATION has issued a circular which should receive the earnest consideration of all interested in the welfare of that body. The proposed measure seems unobjectionable, and possesses the advantage of enabling such as desire to become members, but have not the time, or money to attend the annual meetings, to do so.

The American Medical Association is not by any means as representative a body as it ought to be, and anything tending to increase its usefulness should meet with the hearty approval of the profession. The additional members procured by the proposed regulations will probably not add much to the scientific value of the proceedings, but they will assist the association by furnishing the "sinews of war," and with money at its disposal, prizes can be offered for papers, original investigations, etc. We append the circular:

At the meeting of the American Medical Association held at Washington in May last, an Amendment to Regulation II, was adopted, which provides that—

Membership in the association shall be obtainable by any member of a State or County medical society recognized by the association, upon application indorsed by the president and secretary of said society; and shall be retained as long as he shall remain in good standing in his local society, and shall pay his annual dues to the association.

You will perceive that, as far as such opportunities are embraced, the strength of the association will be increased and consolidated, so as to unite the profession, and give it a force and influence not otherwise attainable. Without undertaking, however, to point out the advantages of this action on the part of the association, or to advocate the plan of which it is a main feature, it may simply be said that, as the new departure has been taken, it is for the association and its constituent bodies to carry it out to the fullest extent, and to give the movement their hearty co-operation.

Toward this end, the first step is to make the action of the association as widely known as possible; and you are, therefore, requested to bring the matter to the notice of your society and its individual members, either by circular, or in such other way as may seem to you most effective for the purpose.

Applications for membership, in the manner specified above, accompanied with five dollars for annual dues, should be sent directly to the treasurer, Dr. Richard J. Dunglison, lock box 1274, Philadelphia, Pa.; on receipt of which the weekly Journal of the association will be forwarded for one year to such member. Respectfully yours,

William B. Atkinson, M. D.

Philadelphia, June, 1884.

A New Method of Treating Areolar Hyperplasia of the Uterus in its first stage is presented by Dr. Paul Sale, of Aberdeen, Miss. (Miss. Val. Med. Monthly.) He claims that in his hands it has materially hastened cures, besides possessing the advantage of being entirely unattended with such unpleasant sequelæ as the occurrence of pelvic cellulitis, uterine colic, and the like, which supervene occasionally on the use of the mildest local applications. Bearing in mind that the uterus is in quite a degree an erectile organ, and that "Areolar Hyperplasia" is preceded and accompanied by passive hyperæmia, and reasoning from analogy of the treatment of like tissues in the same pathological condition, it occurred to him that systematic elastic compression fulfilled the indications for local treatment better than any other. The time selected for its use is four days after menstruation and the technique of the procedure is as follows: The patient having been placed in the "lithotomy position," and if required, the proper axis of the uterus restored; a Hough's bivalve, or Nott's trivalve speculum, is introduced and expanded. The cervix uteri is seized and drawn down with a double tenaculum, which is handed to an assistant. A piece of thin elastic webbing, from an inch to an inch and a half in width, is cut from two to three and a half inches in length, the dimensions varying with the size of the cervix; the cut ends of the elastic are pinned together, the points of the pins to be afterward snipped off. The cervix uteri is then wiped clean and dry with absorbent cotton, and brushed over with a saturated solution of alum to prevent the bands slipping; the now elastic ring is put over the tenaculum, and is expanded by Carroll's knot tier, or any other like expanding instrument) and then placed over the cervix as high up as possible. The tenaculum should now be freed from the uterus, which should be allowed to go back to its original position. After watching it for a short time to see if the band should be modified in length in order to get the proper degree of compression, the patient is placed in the semiprone position of Sims', and the vagina well tam-

poned, especially at its vault, with oakum, which has previously been saturated with pure glycerine. It is preferable for the patient to keep her bed for twenty-four hours, at the expiration of which time the tampon can be removed. The cervix uteri will then be found to have been materially decreased in size, and the band is usually quite loose if it has not been pulled off in removing the oakum. If an eroded os exists, this is now the time to make applications to it, after which the patient is directed to use copious vaginal injections of hot water (six times in the next forty-eight hours); this is to supplement the effect of compression. The compression is at first done twice a week, the interval afterward lengthened according to improvement of patient, to once in seven, ten or fourteen days. A case of average severity is usually cured in from six to eight weeks. The operation has to be changed in some of its details to suit the peculiarities of cases; e. g., it is not advisable to draw down the uterus in one in whom a broad ligament has been shortened by a previously existing cellulitis; nor if tenderness or hardness can be discovered, around or near the utero-vaginal junction, and especially if there is impairment of uterine mobility; under these circumstances the uterus is steadied by making supra-pubic pressure, the band is then put in position by an expander with four blades. Again, in cervices so conoidal in shape, that the band slips off; this difficulty is overcome by introducing into the uterine canal a short glass stem pessary before putting on the band, or, a small tupelo, laminaria or sponge tent; by using these last, both concentric and eccentric pressure is obtained. This method should be used more cautiously, requiring the patient to remain in bed for twenty-four hours, though pessary or tent should not be allowed to remain intra-uterine more than six hours. When he commenced this method its use was restricted to those cases in which the cervix alone was involved, but latterly he found it to act almost as well when the disease has invaded the corpus, cervical compression seeming to exert a beneficial influence over nutrition of the whole organ. In addition to the compression Dr. Sale uses intra-uterine pencils of ergotin and iodoform, and other therapeutic applications.

A Death From the Administration of Chloroform is reported by the *British Medical Journal.* It was administered by Mr. Theodore Covernton, house surgeon Cumberland Infirmary, Carlisle. The patient was a boy of 17 years suffering from an affection of the ankle joint. The heart was previously examined and found normal. The anæsthetic was discontinued, the operation completed and the patient apparently recovering when vomiting set in. The finger was introduced into the throat, the tongue was brought well forward with forceps, but by this time the heart had ceased to beat. Electricity, artificial respiration, and tracheotomy were all tried, but to no avail. No post morten was allowed. For the benefit of others the coroner should, in such cases, insist on an autopsy.

Milk as a Disease Carrier, has frequently been shown guilty by scientific investigators of spreading enteric fever, and were the subject not so difficult of investigation we should expect to find a similar condemnation pronounced upon it in many of the enteric troubles which carry off so many children during the summer months. We readily admit that continuous hot weather both day and night, has been chemically shown to be an important factor in the development of the enteritis of children, but there is nothing in a few nights of hot weather which in itself should cause gastric disturbance. Hot weather, however, is very effective in rendering milk unfit for food, and the exact steps which occur in the process are certainly not well understood. Nor does it seem possible for even the astute housekeeper or nurse to determine the precise moment when the process commences. For we must be prepared to admit that in all probability the secret process of disintegration commences long before its results are recognizable to either the sense of taste or smell even in those who have those organs the best developed. A careful and pa-

tiently conducted series of observations on the part of those who rule in some of our children's hospitals would be a great benefit to the whole community. We all know with what repugnance we look upon meats during the hot weather, and yet the usual quantity of milk which constitutes the meat of children is forced upon them in all temperatures, and the refreshing drink of water which nothing else in this world can substitute is refused them.

We have somewhat diverged, however, from our original intention in commencing this article. It was the investigation of Dr. C. E. Saunders, the health office of a district in England as referred to in the British Medical Journal which induced us to refer to the subject. Dr. S's report gives the explanation of an outbreak of enteric fever which occured in his district. One peculiarity was the extreme rapidity with which the cases followed each other; between May 8th and May 29th, seventy-three cases occurred in forty-nine houses. At first sight these houses had no common condition; they were not all on the line of any particular sewer, some of them had no sewers, and some were connected with sewers which go into a system separate from that of the rest of the city; further, the milk was supplied to these houses by six different retailers of milk. Under these circumstances all sorts of hypotheses were started to account for the epidemic, and the one which was apparently most favored by the citizens, attributed it to foul smells arising from the gratings of the sewers in the streets. Dr. Saunders, however, was satisfied that the system of disconnection and free ventilation adopted in the construction of the new sewers rendered such a probability very remote, and he was led to investigate the source of the milk-supply with great care. He then discovered that every one of these milk-sellers drew a part of their supplies from one source, a farm where, on January 26th, a domestic servant was taken ill and passed through a typical attack of enteric fever, her convalescence not being complete until April 1.

Such an outbreak as this merits the very closest research of our bacteriologists, as its study presents a field which would probably enlarge our views of the etiology of enteric troubles greatly. It may turn out also that just such cases constitute the focus from which the hog cholera develops. For it would appear that the admixture of a small quantity of milk is sufficient to contaminate large quantities. One very interesting question associated with such instances is whether in the process of manufacturing cheese the morbific agent contaminates by preference the cheese or the whey, or whether both alike are contaminated by its influence.

Bismarck has made another virulent display of his characteristic narrow-mindedness. On his sixty-ninth birthday the Berlin Scientific Society tendered him an honorary fellowship, a distinction which any man, no matter how high his position, might consider an honor. "Nothing on earth," said the Prince, in declining the offer, "would induce me to become in any way whatever the colleague of Virchow or Mommsen." For consummate arrogance this is unsurpassed, but it is only in consonance with his bigotry, which would, if it had the power, retard the march of progress, and stamp out with its iron heel all freedom of individual thought. Opposition to vivisection was his reason given for declining the proffered honor. This pretext in itself is sufficiently contemptable in the *Premier* of a country where vivisection has yielded such honors to its scientists, and such beneficial results to science and humanity. But no one will believe this to be the real cause of his seemingly gratuitous fling at Virchow, and Mommsen. It is not because they are advocates of vivisection, but because they, in common with the mass of German scientists, belong to the liberal party, which is endeavoring to counteract the Bismarckian autocratic policy. No man has more persistently and efficiently opposed Bismarck's tyrannical and barbarizing *regime* than Virchow, the physician and scientist, therefore, the Prince hates him, and uses the stupid, abnormal sentimentalism imported from England as a shield from behind which he strikes at progress and freedom.

The "Students' War" will some day be repeated, and this Bismarck knows and fears, hence his excessive tenderness for a few brutes; hence the sacrifice of tens of thousands of human lives; hence Germany has been made one vast armed camp. The toadyism of the Scientific Society of Berlin to a man who hates all scientists, save such as are subservient, has met well deserved retribution, and we are glad that such is the case, but it galls us to think that Bismarck, who has been a curse to Germany and civilization, should dare, even indirectly to evince contempt for men who are benefactors of their country, and of humanity.

How To Trephine the Skull.—Dr. J. B. Roberts, after insisting at some length on the necessity of resorting to early exploration of the condition of the outer and inner table of the skull in case of an injury of a suspicious character inflicted on the head, thus expresses himself:

"When about to use the trephine itself for perforating the skull, to allow elevation and extraction of fragments, the surgeon should select a small conical instrument; one not over three-eighths of an inch in outside diameter at the cutting end is large enough. Those usually kept by the instrument makers are too large. It is only necessary to bore an opening sufficiently large to admit the end of the elevator, hence a small trephine is always more proper than a large one, except in those comparatively rare cases where a large disk is to be removed over the line of an old depressed fracture. Recently, I visited the four principal instrument makers of Philadelphia, and could not find in stock any trephine as small as that which I recommend. The belief which has caused trephines to be made so large is founded on an erroneous theory.

"In recent depressed fractures the trephine crown should be applied upon the solid bone, and should overlap the least depressed edge of the displaced fragment. This allows more ready elevation or extraction by means of the elevator, because the most depressed edge is very frequently beveled, with the inner table broken at a more distant spot, and is thereby wedged under the solid portion of the skull at that side. Elevation at the least depressed edge is effected more readily and with less danger to the brain from manipulation.

"To conclude, I assert that in all subcutaneous injuries of the head with possible existence of depressed fracture, an immediate exploratory incision should be made in the scalp. In all instances of depressed fracture with possible existence of splintering and spiculation of the inner table, an immediate exploratory trephining of the skull should be done."

The Public Health.—Of course we are prepared for the fact that no period in the world's history has been so favored with measures adopted for the benefit of the public health as the present period. That constitutes a phase of the necessary evolution of things. We are not of those who believe in the total depravity of mankind; on the other hand whilst we can but deplore the frequent outcroppings of wicked hearts, yet to offset this we see the humau heart swelling up to overflow in the manifestation of sympathy for their fellows, and in proportion as we become large and universal in our ideas, wlil this innate goodness take upon itself more absolute and practical forms. We look upon the American Public Health Association as one of the most catholic and disinterested or rather universally interested associations of which the American Republic has reason to be proud. We congratulate St. Louis as having been chosen as the place of session in the coming month of October, and at the same time present to our readers the part of their preliminary circular which is of general interest.

The Twelfth Annual Session of the American Public Health Association will take place on Tuesday, Wednesday, Thursday and Friday, October 14-17, 1884, at St. Louis, Missouri, and will present the following topics for consideration:

1. Hygiene of the Habitations of the Poor.

2. Hygiene of Occupations.

3. School Hygiene.
4. Adulteration of Food.
5. Water Pollution.
6. Disposal of Sewage by Irrigation or Chemical Action.
7. The Observable Effect upon the Public Health of Official Sanitary Supervision.
8. The work of Municipal and State Boards of Health.

Persons intending to present papers on any of these subjects are requested to notify the secretary at once, and to furnish him with a condensed abstract of the same not later than September 1st. Members desiring to participate in the discussion of these papers are also requested to inform the secretary.

It is requested that the complete papers shall be in the hands of the secretary a least three days prior to the meeting, as all papers must be examined by a committee before being read. They may be sent by mail or express to the secretary at his office prior to the 1st of October, after which date to his address at St. Louis, Mo., care of Dr. Jos. Speigelhalter.

CONTRIBUTIONS.

SPONGE GRAFTING.

By David S. Booth, M. D., Sparta, Randolph County, Illinois.

Read before the Illinois State Medical Society, May 10th, 1884.

September 12, 1882, I was called to the bedside of Thad D., aged 15, who, while out gunning had received the entire load of *turkey* shot, from one barrel of a double-barreled shot-gun. The relative position of man and gun as given by patient and comrade were as follows: The patient was standing in a stooped position in a spring wagon, the butt end of the gun resting upon the floor of the same, the muzzle resting upon the seat, at an angle of about 40°; when the patient's comrade threw a bag of green apples into the wagon, which striking the hammer of the gun, and discharging the contents of one of the barrels, and thus wounding our patient.

The charge entered the soft parts at the under and middle part of the axillary border of the pectoralis major muscle (right side), and passing upward, backward and a little inward, making its exit between the clavicle and scapula, apparently missing both bones. The soft parts from the entrance to the exit, a distance of 6 inches, being severely lacerated and a portion of the structures, the entire length of the track of charge, being carried away, a large opening existed.

Being satisfied that all of the arterial connections of the soft parts in front of the injury were destroyed, and that they would slough off, yet, by reason of his age and previous good health, I attempted to preserve the isthmus of connection, and to encourage adhesion as the path of the injury would cleanse itself of destroyed structure.

The parts were thoroughly cleansed of all blood, loose and foreign matter, with carbolized water, 1-20, a notched drainage tube introduced, a compress of several thicknesses of cotton cloth applied, after being wet with carbolized water, and over all an ascending spica bandage of the shoulder was applied, an opiate given, and directions given to secure sleep and rest from pain by giving more opium, and at the same time to keep the dressings wet with the carbolized water.

The following day Dr. H. R. Guthrie assisted me to redress the injury, and continued with me in the case until final recovery. I shall not attempt to give a detailed report of the case, as it would necessarily increase the length of this paper and impair the true aim.

My first impression proved correct, as the whole of the soft parts forming the anterior boundary of the path of missile sloughed off, leaving a deep and long gutter, almost down to the ribs at its lower and middle part, and at its upper part nearly reaching back to the anterior surface of the scapula. By the ordinary granulating process it would have required many months to have filled in this deep, wide and long chasm, as it existed after all of the sloughs and cleansings had been cast off.

At this stage of the treatment we filled the whole of the injury with prepared sponge, then we drew the shoulder downward, forward and inward, and confined it in this position with long strips of rubber plaster, extending from the back of the shoulder and upper part of the arm, across the injury in front, and on to the breast as far as the sternum; over this a thick compress to fill up the hollow in front, and over all the ascending spica of the shoulder. The other treatment as before. At the most dependent part of the injury, *e.g.* in the

axilla, we used powdered dry earth, to receive and absorb the discharges.

In the passage of the charge from the gun through the soft parts, the periosteum of the outer half of the clavicle, and the head of the humerus must have been injured, or a few of the shot may have penetrated both bones or the nutrient vessels destroyed, totally or in part. As necrosis of the outer half of the clavicle, and of the head of the humerus down to its surgical neck took place, and we were compelled to remove both, after they became detached from the sound bone.

I believe it remains an unsettled question as to whether pus is a solvent of *bone* when bathed in it, and if it is, it would hardly apply in this case, by reason of the fact that the humerus was removed from the suppurating region.

The pectoralis major and minor muscles were completely divided, and a large portion of the trapezius muscle was carried away and sloughed off, but in the face of this fact we had but little hemorrhage at any time during the treatment, showing with other facts (circulation, sensation and temperature good in the arm and parts below the injury) that the axillary vessels and nerves were not divided, and this was, and is yet, a mystery that we cannot solve.

The continuous treatment of this case included September, October, November and December, 1882, and was under occasional observation to April, 1883. The sponge-grafting was commenced Oct. 10, 1882, 28 days after the receipt of the injury, and the entire gap was filled up Nov. 28, being 49 days.

But the clavicle did not fully separate until Dec. 28, when it was removed, and on April 5, 1883, the head of the humerus was found separated and loose, and was removed with bone forceps.

Before the sponge-grafting was commenced amputation at the shoulder joint was discussed, but to have performed this operation it would have been necessary to have taken the entire flap from the posterior part of the shoulder, and upper and outer part of the arm; this being the case it gives you something of the magnitude of the loss of the structure.

We, Dr. Guthrie and myself, examined Thad. D. to-day, Nov. 13, 1883, with the following result: The cicatricial tissue measures six inches, and about one-sixteenth of an inch in width; i is soft and movable, gliding free from all bony attachments.

All of the divided muscles, and those involved in the sloughing or cleansing process have atrophied, numerically, while simple atrophy has attacked the unused muscles, in part or as a whole.

To all appearances, cœteris paribus, the cicatrix would not interfere with the free play of these parts. By reason of the great loss of the soft parts, and of the outer parts of the clavicle, with the head of the humerus, a great trough or excavation exist, showing clearly that the injury had been of a severe character.

Complete ossific union through osteophytes has taken place between the upper end of the humerus and the under surface of the acromion process of the scapula, extending downward along the external or axillary border of scapula to its middle third, including the glenoid fossa. The union, or bony anchylosis is so complete and firm between the humerus and scapula, that it is impossible to move one without moving the other.

From what were these proliferating asteoplasts developed that united these two bones? Were they the result of osteoplastic periostitis, combined with ostitis or caries?

Can periostitis induce destruction of bone, and at the same time produce or cause the development of new bone in the vicinity, or in this case was the necrosis produced by capillary stasis?

The scapula is drawn upward and backward by the combined action of the trapezius, levator scapul, rhomboidciæ, and rotated by the inferior division of the serratus magnus muscle, causing the acromion process of the scapula to be very prominent.

The outer end of the clavicle is elevated, slightly rotated, and drawn backward and inward, being in close proximity to the anterior superior border of the scapula, near the suprascapular notch.

He can with great effort raise his elbow from his body, in a direct line about six inches, this action being performed by the muscles above named; as the greater and lesser tuberosities of the humerus were lost in the necrosis of said bone, these being the points of insertion of the supraspinatus infraspinatus and teres minor that moves the humerus backwards and the subscapularis that rotates it inward. And by taking the humerus as the radius or semidi-ameter of a circle, he can describe with his elbow an arc of about 90°, this being in circumduction.

The movements all being performed by the scapula gliding or rotating on the parts in front of it, and by this means the various movements of the arm are made, such as adduction, abduction, circumduction, rotation, advancing, retreating, elevation and depression.

Even with the loss of the supra and infraspinatus, teres minor, clavicular portion of the trapezius and deltoid muscles, with the loss

of the pectoralis major and minor, and the loss of use of the serratus magnus, in its two superior divisions, I would have thought that the weight of the arm and parts below, aided by the ascending fibers of the trapezius, latissimus dorsi and pectoralis minor muscles, would have been sufficient to antagonize the elevator muscles of the shoulder, and prevent the marked elevation that exists.

We, Dr. Guthrie and myself, re-examined Thad. D. Nov. 14, 1883, and clearly make out, that the lower half of the cicatrix is free as described above, but that the upper half is firmly united to the ribs below or behind, and this explains the want of action of the two superior divisions of the serrauts magnus muscle.

He lifted a heavy office chair with ease,and without pain, in fact, he informed us that no amount of use that he has ever imposed upon the injured side, sincè recovery, has ever given him any pain.

He placed his hand upon the sound or well shoulder with as much ease apparéntly, as he could the well hand upon the injured shoulder.

The movements on the forearm and hand are perfect in every particular.

The second case of sponge grafting, was in case of that which, appeared to be malignant pustule,[1] situated on the inner and lower part of the hypothenar eminence, extending down to the metacarpo-phalangeal articulation of the little finger. I made a deep crucial incision into diseased parts, and applied strong carbolic acid, and a wash of permanganate of potassa.

And as soon as the systemic disturbance subsided, commenced the grafting. On Oct. 12, 1882, after the slough had been cast off, I applied active sarcotics, or stimulating flesh growers,[2] and then filled the ulcer with prepared sponge, coating it externally with iodoform and vaseline ointment, and a roller bandage over all. The ulcer filled up slowly, but did so in about four weeks, léaving a small and slightly contracted cicatrix, and without any impairment of use.

I have my doubts about any other line of treatment giving as speedy and as good results.

The third and last case that I have to report upon this subject, was the result of a gun-shot injury, from a ball running about fifty balls to the pound of lead.

The butt end of the gun was resting upon the ground, the muzzle immediately under the axillary border of the pectoralis major muscle, near its middle; when a dog in attempting to jump with his fore-feet against the abdomen of the patient, struck and sprung the hammer of the gun, causing the gun to discharge its contents.

The ball entered at the point of contact with the muzzle, as described above, passing upward, forward and outward, making its exit a little in front of the outer third of the clavicle.

Mr. A. H. received his injury Sept. 6, 1883, and being absent from home, Dr. J. W. Weir very kindly visited and dressed the injury. The following day, Sept. 7, I saw the patient, and continued in charge until final restoration.

As in the first case, I expected all of the soft parts forming the anterior boundary of the injury to slough off, and they did, with the exception of a small isthmus of soft parts about an inch in width, or rather length, near the middle of the path; which fortunately received nourishment enough to support it, and it retained its integrity throughout, and finally united with the deeper parts.

Above and below the isthmus of connection of the soft parts, I accurately fitted prepared sponge, first introducing a quarter inch soft rubber drainage tube entirely through the wound, notched spirally through all that part within, or in other words, that I may be fully understood: The tube passed through the entire length of the path of the projectile, protruding from the most depending part of the injury about two inches.

Externally the sponge was coated with vaseline and iodoform ointment (20 to ℥j), over this carbolized gauze, then a thick compress of absorbent cotton, and over all, to complete the dressing, the ascending spica bandage of the shoulder.

I continued the dressing as above described every other day for about one-half of the term of treatment, then every third day, and finally once a week.

To cleanse the path of missile, I used carbolized water (1-20), and permanganate of potash in solution (5 to f℥j) alternately, and between the times of my dressing the injury, his nurse was directed to inject the carbolized water through the tube, having the protruding part of the drainage held, or closed, that the fluid should come in contact with all of the lacerated tissues, and then permitted to drain slowly away.

The above described line of treatment has been pursued from the date of first dressing, Sept. 7 until November 5, the date of the last with the following result:

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1 Not examined microscopically for Bacillus Anthracis,

2. Sulpho-carbolate of zinc.

That part of the injury above the isthmus of connection had completely filled in and united by the close of the fifth week, the sponge to the level of the external surface absorbed, and the unused portion cast off.

The central isthmus united with the structures under or below it in about five weeks, the drainage tube was removed third week. On Nov. 5, the part below the central connection had nearly filled up, with the remaining sponge in place.

While the injury to the soft parts were not so extensive as in the first case, and the sloughing of the lacerated structure not as great, yet it was an injury in which there was considerable destruction of tissue. The axillary portion was deeply lacerated, and when the lacerated portion was cast off, a deep and extensive gap existed, that required considerable sponge to fill up.

Once or twice, during my absence Dr. H. R. Guthrie, of this city, very kindly dressed Mr. A. H's injuries, and is thoroughly acquainted with the line of treatment pursued.

Sponge grafting is only on trial, and three cases can do but little for or against it. As to the published literature of the subject, I might say it had none so far as I have been able to discover.

Prof. S. D. Gross, in the last edition of his work on surgery simply alludes to it, and dismisses the subject in his happy manner without indorsing or condemning the proceeding.

Dr. E. W. Lee, in his report as chairman of the Committee on Surgery, gives a passing notice.—See Transactions Illinois State Medical Society, 1883, page 87.[1] I was present at the reading of Dr. Lee's paper, and the presentation of a case of sponge grafting of the fingers, I believe. But, as his paper was general, I did not succeed in finding it until a few days ago. Dr. Lee evidently deserves the credit of my use of sponge-grafting.

Gentlemen, I am fully persuaded that sponge grafting is indicated and can be used to advantage in treating all cases where there is great loss of soft structures, whether produced by laceration, incision, or ulceration, particularly, where any of these conditions exists near joints, or in parts where a cicatrix of large size, and of an unyielding character would seriously impair the healthy action, or where a patient would be greatly disfigured.

I think the following are a few of the many advantages that can be claimed for sponge grafting:

1. The presence of the sponge will encourage the casting off of the lacerated or dead tissue.

2. To aid, after the above processes have been completed, to encourage healthy granulation, and thus, hasten union.

3. To support the granulations, be they organizable lymph or loose capillaries, that the healing process may progress uninterrupted, and probably limit the amount of connective tissue to the minimum; and thus prevent severe contractures in great loss of soft parts.

The third and last case, was the only one in which the sponge grafting was used from the beginning, and the impression was left upon my mind, that the cleansing was completed in about one-half of the usual time.

All of the cases impressed me favorably with its power to hasten the granulating process, and thus shorten the time of cure.

That the granulations enter the meshes of the porous sponge, and even pass through was clearly demonstrated.

In all the cases the sponge would become swollen and protrude above the surrounding parts, and in paring it off, fine vascular points would come prominently into view, and discharge freely of arterial blood; while the waste was being continually discharged through the sponge.

That we may practically understand the utility of sponge grafting, the question naturally arises. What are granulations, and what are their use?

And whichever horn of the dilemma we adopt, as to whether they are superficial capillaries of the part which have become displaced; and have been thrown upward as a granulation loop by the propelling action of the heart, the restraining influence of the skin being removed.[1] Or, whether we adopt the other position that granulation tissue consists of embryonic cells and a network of capillary loops, which convey to it a steady supply of nutritive material from the blood. "These indifferent or embryonic cells being organized coagulable lymph, surrounded by a yellowish bland-fluid, which is pus."[2]

Be it a new formation of capillaries or displaced original capillaries, they require support as conduits for nutritious elements; and the capillaries by engaging and following up the meshes of the porous sponge, are supported, and as they deposit the building material, and it becomes differentiated into the required structure, and when the strange

1 Said paper read at the Quincy meeting. May 17, 1882.

1 See Dr. Lee's article. loco citato.

2 See International Encyclopedia of Surgery. Edited by John Ashurst, Jun., M. D., vol. I., pages 112 and 113.

scaffolding is no longer required, the organic septa are removed by absorption.

That the above is true, any one can verify by paring the protruding sponge, when the vascularity will make itself manifest.

The last case demonstrates that a healthy granulating surface is not required before commencing the sponge grafting, and that, by its presence it hastens the cleansing of the injury by casting off parts destroyed, or that have lost their vitality, and of course not fit for use in building up or repairing the injured or diseased parts.

It may be claimed that connective tissue does the most of its contracting after it has closed up the gap, when the so-called drying stage commences.

A newly formed cicatrice is of red color, and as its age increases, it parts with its coloring gradually, until it becomes of a pearly white color; the loss of color being caused by the obliteration and destruction of the now unnecessary capillary blood vessels that have existed to carry on repair.

Since writing this paper Dr. Edward Borck's paper on sponge grafting has been received and read. The Doctor's paper was presented and read at the September meeting of the Tri-State Medical Society (Sept. 19, 1883), and can be found in the St. Louis and Chicago, WEEKLY MEDICAL REVIEW, of Nov. 3, 1883, page 351.

Dr. Borck gives some very interesting cases, and appears to be very favorably impressed with the proceedure, but as my limit has been reached with this paper, I will be forced to refer parties to the original paper. As opportunity offers, I shall follow up the subject, and whether for or against, I shall declare as results justify.

April 25, 1884.—Thad. D., re-examined very carefully to-day by Mr. Guthrie and myself. We had him to perform every movement with his disabled arm that he could, noting the character and extent of the same. Then for the purpose of getting the amount of labor performed by each muscle separately, we grasped each muscle while in action, then a cluster of muscles, and the other applied alternately to the scapula and arm, and with the assistance of our eyes; could study and make out the part played by the muscles singly and in groups, in the performance of the different movements.

In extension, he carried his arm outward from his body about 45°, but the deltoid muscles does not appear to play any part in this action, although it has atrophied but little, and contracts when he attempts to carry the arm from the body. All movement of the arm is made by the gliding of the scapula upon the parts in front of it, or upon which it rests, by reason of the complete bony union between the scapula and humerus as described above. The pectoralis maj. and minor are the only muscles concerned in the movement of the shoulder and arm that numerical atrophy has seriously invaded.

LAWS DETERMINING SEX.

BY ROBERT FUNKHOUSER, A. M., L.L. B., M. D.

Read before the St. Louis Medical Society, May 31.

As far back as the memory of man runneth not to the contrary, there has existed a significant fact, viz: duality in the division of nature, male and female, not only in animal life, even among the lower forms, but in the vegetable, also, is found this division. It is generally the case, though there are exceptions, that the male is the stronger, the more active, the positive agent, while the female is the weaker, the less active, passive, the negative agent in the transmission of life. In some individuals, however, it is noticed that this relation is changed in some respects, the feminine characteristics being predominant in some, while the masculine in some females These phases in physiognomy are explainable by the laws evolved hereinafter set forth.

One sex is intended as a complement to the other. Man is the stronger vessel and as Tennyson beautifully expresses it

"Woman is the lesser man,
And all thy passions, matched with mine,
Are as moonlight unto sunlight,
And as water unto wine."—

Taking a cursory glance at the anatomy of the human body, we notice two recognized divisions: A double division, symmetrical in both sexes, viz: the right and the left, pertaining to every organ and part of the body, but particularly to the genital organs, which I shall designate further as the male and the female, the positive and the negative, the plus and the minus, Thus, we have the right male and the left female testicle; the right male and the left female ovary. The uterus is one organ apparently, but is bifid or divided into two cavities occasionally in the adult, which is the natural condition, however, in the human embryo; while in some of the lower animals it is the normal condition, as in the marsupiala and monotremata where we find

the double condition, not only of the uterus, but in the former also, of the vagina. The rodentia, also, possess a double uterus.

The penis is one organ, but in human embryo-life there is a period when the corpora cavernosa have not united, but are separate. This is seen sometimes in persons who have hypo— or epispadias. Among some of the lower animals, the corpora cavernosa are distinct. In the ophidia the penis consists of two separate bodies, which are grooved along their upper surface for the passage of the semen.

In the multiparous marsupials in which most of the ova are impregnated in both ovaries, as e. g. in phalangers, permales and opossums, the clitoris is bifid in the female, and in the male there is a double glans penis. They enjoy, as it were, a double coitus.

The duality of the organs of generation in the female of some of the orders of both vertebrates and invertebrats is not always perfect, Among birds, the right ovary with oviduct is always atrophied, so that it is the left alone which produces the ova.

In males of birds it is seldom that the testicles are developed alike. The left is generally the largest, though occasionally the right is found to be.

In the ornithorynchus, the ova tat ripen are generally two and limited to the left ovarium.

In examining the genital apparatus of members of the animal kingdom, even of some of the lowest types, we are impressed with the fact that the genital organs are generally present and distinct, and are usually double and symmetrical in both sexes; but in some orders the ovaries are not always distinct and active, (e. g.) birds, in which one is atrophied; and fishes, and in some monotemata, in which the right ovary is inactive; and in some of the lower forms of animal life they are not always well-marked, while in all cases, with few exceptions, the testes in the male are separate, distinct, and always present.

Without entering into the descriptive anatomy of the testicles and the ovaries, of the germ cell and sperm cell, we will now proceed to consider some experiments performed for the purpose of ascertaining the relations of the germ and sperm cells in the determination of the sexes. The results and conclusions derived therefrom I submit to your careful consideration.

The first of a series of experiments was performed for the purpose of determining the agency of the right zoosperms in the production of the future being.

a. With this purpose in view, I extracted the left testicle from a dog, leaving the right intact. After a sufficient time had elapsed, I served him to a bitch in heat, taking particular care no other dog should reach her. In due time, the bitch was ready to bring forth her litter, but being old and meeting with an accident, she died during labor, so that I removed the contents of the uterus. There proved to be only one pup, which was a male.

The above experiment was repeated six times by serving the same dog, and other dogs from which the left testicle had been removed, to different sluts. The same result as to sex followed.

b. Experiments similar to the above, but more convincing, perhaps, were the following, viz: A dog having only the right testicle, and a dog of an entirely different variety having both testicles, were allowed, at different times, to approach a bitch. In one instance there were two pups in the litter born; one was a male, the exact counterpart of the father having the right testicle; the other was a female, which resembled the dog with two testicles, a yellow dog. I repeated the above three times, and in each case there was present in the litters a male pup, partaking of the appearance of the dog having one testicle.

c. Of a like character was the experiment performed by injecting the semen collected from a dog retaining only the right testicle, into the right cornu of a bitch in heat (while under the influence of ether) by means of a long, slightly bent nozzled syringe. This was repeated several times. The pup born in due time was a male.

The second of a series of experiments was performed for the purpose of determining the action of the zoosperms from the left testicle in determining the sex of the future being.

a. A dog having only the left testicle was served to a bitch in heat. After a time a female pup was brought forth.

This was repeated five times with others similarly operated upon, and other bitches, with like results as to sex, though in some instances there would be more than one pup in the litter.

b. Similar to the above, but differing in detail, was the following experiment: I made a fistula of the right duct (vas deferens) of a dog which, when he served a bitch in heat, the zoosperms from the left testicle only were permitted to enter. The dog served the bitch several times. In due time several female pups were born.

c. As further corroboration, I performed but one experiment similar to one mentioned before on p.—b, under the first series. A dog retaining the left testicle and a dog with two testicles were served on different occasions to

a bitch in heat; three pups in the litter were the result. One of the pups was a female, having the appearance of the one having only the left testitle. The other two were male and female.

The third of a series of experiments was performed for the purpose of ascertaining the agency of ova from the right ovary in the determination of the sex of the future animal. I now pass to that class of cases in which an ovary was extracted.

a. After removing the *left* ovary from a bitch, sufficient time having elapsed, I served her while in heat with a dog having only the *right* testicle. In due time, she gave birth to one pup only. This was a *male.*

Seven repetitions of this experiment gave the same uniform result as to sex; in all cases there were *male* offspring only.

b. Under this class of cases would come the experiment in which a dog having both testicles intact was served to a bitch having the *right* ovary only.

Several experiments of this kind were performed. Pups in due time were born, but they were of both sexes, sometimes being of one sex, sometimes of the other.

Consequently the physiological deduction is that the ovary has no active power in the determination of the sex in these cases. But an influence, however, exists in so far as the attraction of the sperm cell from the testicle of the one side is greater for the ovum of the corresponding ovary than for the germ cell of the opposite ovary. This point will be elaborated further on in this paper.

The fourth of a series of experiments was undertaken for the purpose of determining the agency of the ovum of the *left* ovary in the determination of the sex of the future animal.

a. After extracting the *right* ovary from a bitch, I served her with a dog having only the *left* testicle. In time she brought forth a *female* pup.

This experiment was repeated five times with different dogs and with the same uniform result. The sex was *female.*

b. Experiments similar to those mentioned on p—b. under the third series were performed, in which a dog with both testicles intact was served to a bitch having the *left* ovary only. A number of experiments of this kind were performed, and the results observed. Different litters were born; the pups were of both sexes.

Thus is demonstrated the fact that one ovary is sufficient for the production of both sexes.

The *fifth* of a series of experiments was begun for the purpose of ascertaining the result of the union of the sperm cells of one testicle with the germ cell of the ovary of the opposite side; that is where a dog having the *right* testicle only was served to a bitch having the *left* ovary only.

In the five cases in which the experiment was made the sex of all the pups was uniformly the same, viz., male.

The *sixth* of a series of experiments was the reverse of the preceding. A dog having the *left* testicle only was served to a bitch having the *right* ovary only.

The sex of the offspring was *female.*

Seven experiments of this kind were made with the following result, viz.: The sex in all the experiments made, and of all the pups produced, was the same (i. e.,) *female.*

In examining and analyzing the results of the foregoing experiments, their unvarying uniformity is remarkable.

If the dog has but one testicle with which to procreate, and he serves a slut having both ovaries, or retaining only the ovary of the side corresponding to the testicle of the dog, or retaining only the ovary of the opposite side, the result as to the sex of the offspring was the same in all cases, except in one case, which I shall now relate.

Having obtained in a number of experiments the uniform results anticipated, I was induced to expect that in all cases under like or similar conditions, the result would be the same.

In one case, however, in which I had several times served a dog having the right testicle only to a bitch in heat, the two pups comprising the litter, instead of being of the same sex, were of different sexes, one being a *male,* the other a *female.* At first I was startled at this result, an apparent inconsistency, for it was only apparent, not real and not incorrect with results previously obtained. I knew I had removed the *left* testicle entirely. Therefore I was sure that the presence of no part of that testicle could have anything to do with it.

In Russia there is a religious sect called the Skoptzy, among whom it is a religious rite to mutilate the external organs of generation in different degrees, involving one or more parts, according to the fervor of the religious zeal of each individual Skopetz.

It was noticed by those investigating the subject that the power of erection was not lost in cases in which the penis remained intact, the testicles being removed; in fact there were many who kept girls for the purpose of gratifying their libidinous passions, which in some cases apparently knew no bounds. And it is

related that some of their wives and some of the women supposed to be faithful, who held such relations, were brought to bed with child.

This phenomenon is capable of two solutions, viz., either some zoosperms elaborated during the period of acknowledged vitality, remained in the reservoirs (i. e.,) the vesiculæ seminales, and this in some cases is, by no means, an inadequate explanation, or otherwise this result followed copulation with another person with the necessary appendages, which in the majority of cases undoubtedly was the correct solution.

The first mode of explanation in some cases, at least, commends itself preferably to my judgment, though this was not assigned, but the latter mode only, to account for this phenomenon of conception. And when the case of the pups under consideration arose, the same manner of explanation occurred to me. In other words there had remained behind in the left vas deferens, some zoosperms from the *left* testicle which were ejected at the connection that fructified the ovum of the future female pup. The congress of the dog was the second or third after the removal of his testicle.

It would be expected that the ejection of any remaining zoosperms would have been discharged at the first connection after the removal of the testicle in question, though it it would not be unreasonable to suppose that the zoosperms might remain in the vasa deferentia or vesiculæ seminales, indefinitely, especially in man and animals that have well-developed seminal vesicles.

Zoosperms have been found in vesiculæ seminales after death which I have seen and which have been observed by others.

For the purpose of verifying the above explanation, I directed the left vas deferens of the dog having the right testicle only who had been the father of a male and female pup.

I opened the left vas deferens, being careful to collect the fluid contained therein. This fluid was placed under the microscope, and I found well-developed zoosperms which result in the most gratifying manner realized my anticipated explanation.

I have upon several occasions examined the vasa deferentia of dogs, whose testicles had previously been removed and found zoosperms present in the ducts. * * * * * This fact has induced me to allow a dog so mutilated to have a number of organs before serving him to a bitch.

[TO BE CONTINUED.]

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

REPORTED FOR THE REVIEW.

Stated Meeting May 31, 1884.

Dr. Funkhouser read a paper on "Laws Governing the Determination of Sex."

Dr. Schenck.—We are under many obligations to the doctor for his investigations. I don't suppose there is anything in the world which is more interesting, or has aroused more curiosity than the foretelling of sex, and we are sometimes apt to be led astray by special statistics in relation to these matters. I am glad that the doctor has been making investigations; he deserves great credit for that of course, although that which he gives out is not new. We should not be too positive about these experiments, however. The doctor has not given us an exception except one which is accounted for, which is really not an exception. It is very much like the advice the herb doctor gave to the young man whom he sent to procure some herbs, telling him to be very careful of the manner of procuring them, because if he scraped the bark down it would be a cathartic, if he scraped it up it would be an emetic, and if he scraped it both ways the Lord only knew how it would act. We know that different theories have been advanced in relation to this matter. We have been told that it depends merely upon easterly or westerly ways; we have been told that the male sex comes from the right testicle and the female from the left. I know very well that to the right testicle has been attributed the giving of the male sex and the left to the female. I know that the left testicle is larger than the right testicle, and yet we say the right is more honest. But all these statistics and all these things have been gone over before, and they have been proven to be erroneous. The testicles vary as we know, and we know very well that there is a difference between the right and left ovaries, and there is a difference in the circulation. We know that certain diseases in the male sex attack the right testicle more than the left, and that certain diseases in the female attack the left ovary rather than the right, and we know that the left side is always spoken of as the weak side of woman. We can account for all this, it is owing to the difference in circulation. If we can discover laws by which we can control the determination of sex it will

be a great step, but I do not believe that as yet we have anything definite upon that subject. The experiments which have been made are not sufficiently full to satisfy me in relation to the matter. From statistics compiled in Great Britain it has been shown that for every 105 male births there are about 100 female. I don't think Providence has left this thing so that we can do as we please and produce one sex or another. The doctor in his paper speaks of nervous influence; one of the old theories is that the ovary is but a receptacle for surplus material; that as surplus material, muscle and so on was developed it was deposited in the ovary for future use, and when the vivifying power of the male was brought in contact with it it took on life. This theory was advanced long before we looked upon electricity or electrical movements as having any influence. We know that there are certain functions to be performed by the ovary and certain functions to be performed by the testicle, and we are apt to conclude that the male performs the most important part; that he gives the brain and the higher part of the being, and the lower organism comes from the female. There is no doubt, I presume, of the statement that the female without any connection with a male may produce certain products characteristic of certain changes which take place in the ovum, and we know positively that the ovum may go through a process of separation. I was not aware that the spermatozoids travel as rapidly as the doctor has claimed. I doubt very much whether they travel with such rapidity that they would reach the ovary within an hour after coition. The subject is interesting, and I should feel very glad if the doctor would continue his investigation, and make a larger number of experiments.

Dr. Dean.—I would like to ask Dr. Funkhouser how he obtained the spermatozoids which he injected, in what manner he obtained them?

Dr. Funkhouser.—An excitation was produced which resulted in an ejectment. In some of the experiments I made fistulæ and collected the spermatozoids as they were ejected.

Dr. Dean.—I would like to suggest to the doctor that in publishing this paper he would give his experiments in tabular form so that the results might be more easily seen. Of course one would have some difficulty in remembering them by reading the paper. The exception which the doctor quotes with reference to the dog that was castrated would not hold so far as the vesiculæ seminales are concerned, because the dog has none, and this is given as the reason why the dog is so long in the act of coition. The seminal fluid is distilled along, as it were, drop by drop, through the ducts to the slut. The doctor's remarks in relation to the division of the penis and the uterus called to mind a view that is entertained most generally among the lower people of the South, that the act of copulation on the part of the male and female is with the nostrils of the female. She then rubbing the seminal fluid into the marsupial pouch with the nose is cited as still further proof of what they had seen done that the penis is forked for the nostrils. I suppose they have seen the female with the nose working the young into the pouch as they passed from the vagina.

Dr. Funkhouser.—In the dog as in many of the carnivora, it is known that the vasa deferentia are inclined to be large and tortuous in some orders of animals, viz., as in the hyena and in the deer there is present the remains of an organ, viz., protometra, which is well developed in some animals. These may take the place of the vesiculæ seminales and act as reservoirs, though they with the vesiculæ seminales are present in some animals. The reason why the dog is such a long time in the act of coition is because the base of the glans of the penis expands suddenly and the dorsal veins become very much congested. As long as the muscles, viz., levatores, which are attached to the penis receive this impression to contract it is impossible for the blood to pass away, and it is only when the amorous desire has subsided that he is able to withdraw the penis. There are other animals which have no vesiculæ seminales and have no expansion of the glans, but do not occupy so long a time as the dog in coition.

Dr. Dean.—I neglected a suggestion which I intended to make. In the dog the seminal fluid is distilled slowly and these spermatozoids, as they can travel only when they are mixed with other fluid secretions, as from Cowpen's glands in man, it is necessary that they should travel slowly; and this provision which prevents the separation of the dog for some time is, of course, a proper one, as it retains the bitch until the dog is through in spite of surrounding circumstances, which are frequently very unfavorable.

Dr. Johnston.—The statement made by the doctor as to the determination of sex by the woman lying upon her right side after coition, will hardly, to my mind, hold good. I suppose the female would turn upon her right side nine times out of ten, and in that event there would be nine males to every female. Numerous investigators have been en-

gaged in the observation of this matter, amongst the rest Tully, who observed that when the female animal was approached early in heat by the male she gave birth to female offspring, usually, whereas, when she was approached later on, the product of conception was usually of the male sex.

Dr. Funkhouser.—The doctor is mistaken. My paper does not say so.

Dr. Johnston.—The statistics of the Register General's office of Great Britain shows that for 100 females born, there are 105 males, and if the fact of the woman lying on the right side determines the sex, the ratio would not stand in that proportion.

Dr. Gregory.—Facts are stubborn things, and an ounce of observation is worth a ton of theory. I stepped over here a minute ago to speak to my friend, Dr. Henske. He tells me he knows of a gentleman in Missouri, where he formerly practiced medicine, from whom I removed the right testicle twenty years ago; and since that time he has raised a large family of seven children, six of whom are boys.

Dr. Bremer.—I would like to call the attention of the Society to some investigations made lately by Prof. Pflüger rn(?). He found that frogs that were born and raised in an aquarium, the number of females vastly predominated over the number of male. Frogs in aquariums, of course, are not under the same favorable conditions as those born and growing up in liberity. Hence, he concluded that external influences, changes of nutrition perhaps, changes in temperature, were sufficient to cause in these lower animals at least the determination, at all events he attriprove this proposition Pflüger went to work buted the determination of sex to external influences. Now in order to verify or disap- and after a series of very comprehensive and scrupulous experiments he came to conclusions that are not very favorable to the theory advocated by Dr. Funkhouser. In the first place he tried to find out whether the number of spermatozoa had any influence on gated, I think, by Hækel. This theory was the sex, that is to say the old theory promul- very much favored by the fact that in those births which were illegitimate or in animals in which the female had conceived at the commencement of the heat the female births predominated, the anatomical relation being such that not many spermatozoa are supposed to pass to the ovum. Pflüger fecundated artificially the ova of frogs and verified the observations which had been made by Hækel before him; that the females largely predominated, I think about two-third females produced; but a year or two years after he found that there was the same number of frogs, that is, the ratio between the sexes was exactly the same, that there were just as many male frogs as there were female frogs. All the frogs that appeared to be females were not in reality so, some of them were hermaphrodites, and after awhile the ovary was atrophied, and the testicle which remained became vigorous, and thus a male frog was produced from the hermaphrodite frog. Thus he established the fact that sex is determined by external influence.

Dr. Funkhouser.—Dr. Gregory's case is a contradiction to my views. But it brings to my mind what I have noticed in the dissecting room and what is mentioned in anatomical works, viz., that there may be a transposition of an organ. We know that to be the case occasionally in the intestines; sometimes the position of the liver and also of the heart, is changed. I remember in my reading meeting with three or four cases in which it was found upon autopsy that one of the Fallopian tubes was obliterated and the tube from the right side in all probability passed over to the left in such a manner that the fimbriated extremity came in contact with the left ovary so that the tube of one side came in contact with the ovary upon the opposite side, thus affording an extra-uterine transmigration of ova liberated from an ovary, whose tube was occluded through the tube of the opposite side, though Prof. Kussmaul contends that such proximity is not necessary. Cases bearing upon this subject are reported by Oldham, Rokitansky, Klob, etc., etc. I have found by experiments on animals that the action of the testicles are not always cooperative and not simultaneous, but are intermittent; sometimes one testicle will be more active than the other, and this very likely is true, and I think it is, in man.

In birds we find that the eggs are always liberated from the left ovary, the right ovary and duct being atrophied. In these cases the ovary has nothing to do with the determination of sex, while in the male the left testicle is much the larger and more active. In this paper I did not have time to enter upon the subject of the influences mental, physical and corporeal of the male or female. In Dr. Gregory's case, if the transposition idea is correct, there may have remained in the vesiculæ seminales some zoosperms, elaborated before the removal of the testicle which were ejected afterward and impregnated the ovum from which the girl was produced. I believe it is a well-known fact, and has been proven by Stricker and other investigators, particularly by La Val-

ette, that the zoosperms discharged may be of two kinds, developed and undeveloped. I have observed some that I considered undeveloped under certain conditions. I believe they may remain dormant and in the course of time unite with ova and influence the future being. In this connection I will mention a case that came under my observation in which I attended a lady who had given birth to a child presenting no particular resemblance to either father or mother. Upon subsequent investigation I found that several years before the birth of the child the woman had been intimate with a young man whom this child resembled very closely. The conclusion which I drew was that some undeveloped zoosperms of the youth had found their way to the ovary and remained inactive and that afterward by the fruitful intercourse with her husband they were able to impress the ovum. The child looked exactly like this youth with whom she had been intimate some years before.

Dr. Dean.—I would suggest that then as the eggs are always from one ovary in the bird the offspring would always be of one sex, or the fowl ought to lie upon the left side to have chickens of either sex.

Dr. Funkhouser.—Not necessarily, I think the ovaries are always secondary in all animals and have nothing to do with the determination of sex, but the products of one ovary, however, will have a greater attraction for the zoosperms of the testicle of the corresponding side.

Dr. Dean.—I think the doctor did claim that; I had forgotten it however.

Dr. Gregory.—Dr. Funkhouser has studied this subject well, but the fact comes to my mind now that misplaced organs are always devoid of potency. Whenever an organ is out of place it wants vigor, and any organ having vigor is certainly in its proper position. We know very well that if a testicle remains above the external abdominal ring, within the canal, that it is a testicle devoid of potency. I believe it is generally admitted, and observation has proven that any misplaced organ is devoid of potency, it wants resistance, it is very liable to, and we thus account for the existence of morbid processes from this very fact that the organ which is the site of the process is an organ essentially out of its natural position.

Dr. Funkhouser.—Anatomically it might be in its natural position. I do not mean to cast a slur upon the virtue of any woman, but we see cases every day in which some one other than the husband is the father of the children; and in regard to the remarks of Dr. Schenck I do not recall the name of the investigator but it is a fact that experiments have been made on rabbits to determine the rapidity of the presence of the zoosperms and they have been found in the Fallopian tubes within an hour after coition. I have found them in the cornu of a bitch in less time than that which practically would be sufficient to determine the course of the zoosperms.

Dr. Atwood.—I have been exceedingly interested in the paper read by Dr. Funkhouser, feeling fully aware that it was pregnant with importance. It is a question which has been under investigation for many years, being particularly important to stock raisers who are endeavoring to get rid in most instances of males and produce females only. I have been a stock raiser for many years and have paid a great deal of attention to this subject amongst inferior animals, and have satisfied myself from reading and observation that the time at which the male has sexual intercourse with the female has much to do with the sex of the offspring. The experiments referred to by Dr. Johnston as having been performed by a Swiss investigator have been again and again repeated in this country and in most instances with success. With regard to the position of the female after intercourse affecting the sex, I know nothing. Sometimes we come across a bull, for instance, which seems to produce all bull-calves; it may be that the cows had an ugly fashion of lying down upon their right side and therefore this large number of bull calves were produced, and of course stock raisers don't want bull calves. However, I do not believe that the doctor is correct in his views, but if we can substantiate his claims he will be a benefactor to his race, and to the world. In reference to the statement that the doctor made a few moments since, I want to call his attention to something he must have forgotten, because I think it is something of which we have all read. It is a notable fact with women and with inferior animals that they breed after first love. This woman mentioned was attached to this young man and the impression of his features were always with her, so that her child did not resemble her husband, but resembled the one she loved. That rule holds good with regard to the production of animals. I remember an instance in which a thorough-bred mare was allowed to run with, gray mule and became attached to him. She afterward had a colt by a stallion but it resembled this gray mule. I think it will be found that more can be accomplished in the

way of determination of sex by the thoughts of the female, and by the impression which she produces upon the embryo through her mind. I believe that will have more to do with it. If a woman constantly has her thoughts upon the sexual organs of a man I think she is more likely to produce a male.

Dr. Gregory.—Dr. Atwood is rather too much inclined to sentiment. I have lived in the country and have seen cases in which the mare would not submit to the approaches of a jack, and it is a very common thing to put a blind on her in order to secure the sexual relationship, and yet the mare ever afterwards will bear colts which are marked with lines and characteristics of a mule, so that it is not sentiment which produces this but it is a physical effect.

Dr. Prewitt.—There is one question I would like to ask Dr. Funkhouser: He made the statement that there are residuary zoosperms undeveloped and that they remain dormant for a long time. Now this is nothing but a theoretical statement, it is not supported by any facts. If there had been examinations of ovaries, and zoosperms found there after a long time, during which they could not have gotten there otherwise—if a case recorded in which years after coition, there were any of these undeveloped zoosperms that needed the copulation of somebody else to develop, if there was any such a case on record, and such a condition of things were found to exist, we could appeal to such a theory in explanation. But it seems to me it would be necessary to have some fact to bear upon this matter, which we could appeal to in explanation, otherwise it is merely theoretical.

Dr. Funkhouser.—I did not mean to assert that it is a law, only that it is an explanation. I cite a case, however, in which I injected zoosperms of a dog into the uterus of a bitch; I had considerable difficulty in doing this; I attemped the experiment several times before I succeeded. In the case in which I injected the zoosperms successfully they were injected into the uterus before the slut was in heat, after she became in heat I served her with a dog of an entirely different variety; she gave birth to a pup which very much resembled the dog from which I had obtained the zoosperms injected.

Dr. Dean.—I must insist that the doctor did imply in his paper that the ovary has something to do with the sex, because he mentions the fact that if the female should lie upon the side on which the testicle which produces the male is, a male will be produced, so that the ovary has something to do with the determination of sex and in the hen that has but the left ovary it would follow that lying on the left side would favor the reproduction; but yet there are two sexes.

The Southern Illinois Medical Association was called to order at Elstun's Hall, Du Quoin, Illinois, June 29, 1884, by the president, Dr. H. R. Guthrie, prayer by Rev. Smith.

An excellent address of welcome was delivered by Dr. L. Dyer, chairman of the committee of arrangements, and was eloquently responded to by Dr. Wetmore, of Waterloo. A motion was made and carried to suspend the reading of the minutes of the previous meeting. Dr. Strong, of Missouri, and Dr. Norman Bridge, of Chicago, were made honorary members. Letters were read from Drs. Hughes, of St. Louis, and Channing, of Illinois. The Board of Censors reported the following applicants for membership, C. A. Mann, John Sonod, Earl Green, C. C. Martin, Wm. Wilhelm, and Dr. Reagan, of DuQuoin. Adopted.

The president delivered his retiring address. The Secretary and Treasurer's report were received. Dr. Wetmore from the committee on Anatomy and Physiology delivered a few excellent extemporaneous remarks on the so-called hepatic cell. He thinks it is only a cul de sac of the hepatic duct, etc. Dr. Thomson read a very fine paper on Homeopathy. A live discussion followed participated in by Drs. Booth, Davis, Ferrel, Mann, Hallam, Marshall, Leiher, Guthrie, Thomson, Wetmore, Dyer, Mathias and Hale. Adjourned.

Called to order at 8:30 p. m. Then followed a very able, popular lecture, by Dr. Norman Bridge of Chicago, on The Relation of the Public to the Profession. Dr. Dyer then delivered a very interesting and learned lecture on The Problem of Life. Adjourned.

Society called to order by the President at 8:30 a. m., June 20. The Society proceeded to elect officers by ballot.

The following officers were elected:

President.—Dr. Hallam; First Vice President.—Dr. S. M. Marshall; Second Vice-President.—Dr. S. S. Rainey; Secretary.—Dr. Huntsinger, Treasurer.—Dr. L. Dyer; Stenographer.—Dr. J. B. Ranson.

Dr. Dodds read a paper on Hot Water Vaginal Injections in the diseases of the uterus. A lengthy and interesting discussion followed.

Waterloo was selected as the place for the next annual meeting and Centralia for the semi-annual meeting. Adjourned.

Meeting called to order at 1:30 p. m. A resolution was introduced by Dr. Rasson, and carried, requesting the members to use their influence with legislators to make a law relative to fire-escapes in hotels, schools and theatres.

Dr. Booth read a paper on Surgery, reporting two cases of railroad accident with amputation, and grangrene and death following. Dr. Rothstein read a very interesting paper on Toxicology. Dr. Huntsinger read a learned paper on the Chemistry of Digestion. Dr. Hallam read a report on the death of Dr. McCord of Centralia. Dr. Dyer alluded to the death of Dr. Clendenin and that of Dr. Day, and moved that the paper of Dr. Hallam on the death of Dr. McCord be included in the additional report of Dr. Dyer on Necrology. Dr. Guthrie in-

trodnced the president-elect, Dr. Hallam, who returned thanks for the honor conferred upon him. Adjourned to meet at Centralia, Illinois, on the third Thursday in November, 1884.

H. R. GUTHRIE, Pres.

J. I. HALE, Sec.

CORRESPONDENCE.

INFORMATION WANTED.

MILLER, DAKOTA T'Y., June 25, '84.

Editor Medical Review.—Will some of the older and more experienced members of the profession please give the latest and best treatment for "scarlatina anginosa?" We are having a slight epidemic of the disease which is not troublesome during the first stage, but the sequellæ seem to be obstinate, such as renal, and pulmonary troubles, more especially. Any light upon the subject will be highly appreciated by

A. T. JAYNES, M. D.
Miller, D. T.

ITEMS.

New York is to have a crematory.

The St. Louis Medical Society has adjourned for the summer.

It is said that the Sundry Civil Bill abolishes the National Board of Health. Sad, if true.

A British railway employee bitten by a hydrophobic dog, has placed himself under the care of M. Pasteur.

The Illinois State Board of Health is engaged in correcting the Register of Physicians. Any corrections should be sent in at once.

And now the season of the year approaches when the U. S. Mail Service will groan under the burden of medical college announcements.

Mr. Balmanno Squire has recommended a combination of equal parts of thymol and lard as an ointment for ringworm. Melted together in a water-bath they mix perfectly.

Dr. S. J. Jones, of Chicago, professor of ophthalmology and otology at Chicago Medical College, has lately had conferred on him the title of LL. D., by the Dickinson College, Carlisle, Pa.

M. Duclaux has succeeded in finding and studying the microbe of the Biskra boil, a well-defined case of the latter having appeared in the St. Louis Hospital, Paris, under the observation of Prof. Fournier.

A weak solution of sulphurous acid, says A. Irving in the Chemical News, gave him marked relief in a case of a severe burn from nitric acid, when cold water applications and solutions of ammonia, etc., had failed to give any satisfaction.

Dr. Geo. J. Engelman left this week for Europe, and expects to be absent, on the Continent, until early in October. Though having earned the recreation of a foreign tour, by his arduous professional labors, the doctor, will nevertheless, be quite busy while abroad. His mission will include the procuring of foreign writers, as associate editors and correspondents of THE WEEKLY REVIEW and Journal of Obstetrics and Diseases of Women, which extended name this paper will bear when Dr. Engelmann returns to assume editorial control of the new department as elsewhere announced. His many professional and personal friends join in wishing the doctor *bon voyage*.

The June issue of the New England Medical Monthly contains an elegant steel engraving of Dr. Lewis A. Sayre. In addition to its excellence as a journal the monthly is worth more than its subsciption price, on account of its portraits of eminent medical men.

The editor of the Texas Courier-Record of Medicine conceives himself as having been discourteously treated at the meeting of the Association of American Medical Editors. We would be pleased to know the objects of that organization, what it has done, and expects to accomplish. Perhaps the editor of the T. C.-R., will enlighten us.

Dr. Scheube, of Leipzig, has published a translation of a Japanese manuscript written about A. D. 808 of our era. It is entitled Dai-do-rui-shin-ho or collection of receipts arranged by classes. In this syphilis is well described, and we can confidently assert now that syphilis had a much earlier origin than has hitherto been ascribed to it by many.

A new sponge and wound pad is offered to the profession. It is said to be cheap, and consequently can be burnt when it has been once used. It contains an antiseptic which is disseminated through the material only at the time of using. It is manufactnred in England, and is said to be the result of a suggestion by Sir T. Spencer Wells.

A New York judge was annoyed by the coughing of a person in conrt, and after remonstrating several times in vain, exclaimed, "I am bound to stop that coughing. I'll fine yon $10. I think that will stop it." "Jedge," said the cadaverous man who caused the tronble, "I'll be willin' to pay $20 to hev that cough stopped. Ef you kin stop it for $10, yon'd better git down off'n that bench and go to practicin' medicine. There's money in it, jedge—money in it."

Prof. Oscar Oldberg, of St. Louis, is about to fill the chair of pharmacy in the Chicago College of Pharmacy. The Chicago College of Pharmacy has always been a prosperous institution, and although it has moved its quarters very often, it has only been to fulfill the necessary functions of its evolution with greater efficiency. The college is erecting a new building for its own special purpose, and as a permanent home.

The central Australian aborigines prevent conception by making an opening into the urethra just anterior to the scrotum? they also, split up the urethra, so as to entirely destroy the canal from the scrotum to the glans penis. As living among them must be cheap, having no taxes to pay, and no duns to worry them, it seems strange they should adopt so painful and inconvenient a method of preventing increase of population. We wonder if the operations are performed under antiseptic precautions.

THE WEEKLY MEDICAL REVIEW.

VOL. X. NO. 2. CHICAGO AND ST. LOUIS, JULY 12, 1884. TERMS: $3 A YEAR.

EPILATION AS PRACTISED IN THE TREATMENT OF PARASITIC DISEASES, although it has the sanction of age and custom, bids fair to disappear as a method of treatment. Dr. Shoemaker, of Philadelphia, in an article which appeared in the July number of the Journal of Cutaneous and Venereal Diseases, gives his opinion of this method, and his reasons for discarding it bear the impress of logic and common sense. In the first place as he states, the parasite is not eliminated by epilation, whereas thorough treatment will completely eradicate it, and when it has disappeared the hairs and their follicles will again assume a healthy and normal state. In the next place, he very justly claims that it is well-nigh impossible to epilate diseased hairs, from the fact that they are brittle, break off easily, and, even if successfully taken out, only aggravate the diseased condition of the follicles. Cutting off the hair or shaving it is also a very poor method; for when the applications are rubbed in the scalp the stubby hairs are disturbed to such an extent as to increase the irritation about the follicles. The proper method of treatment is to use parasiticides and avoid all conditions which tend to nourish the parasite. One of the best methods of avoiding the latter is to discard water altogether. Applying water to the skin only renders it in a better condition for the nourishment of a parasite which has lodged there.

GASTROSTOMY.—The frequency of carcinomatous obstruction of the œsophagus in middle life, and of cicatrical, or fibrous, stricture, particularly in subjects of tender years, has led Dr. Samuel W. Gross to collect in the July number of The American Journal of the Medical Sciences, the somewhat numerous and scattered instances of the various operations which have been practiced for their relief, and elaborately study and compare their relative value and disadvantages. To fulfill this object intelligently he has considered separately carcinomatous and simple strictures. The four operations applicable to carcinomatous stricture are gastrostomy, œsophagostomy, internal œsophagotomy, and œsophagectomy, of which the first three are palliative, and the last curative.

From the consideration of 194 cases of operative procedure, Dr. Gross finds that gastrostomy has proved to be the simplest, most rational, and safest of the four operations for the relief of carcinomatous stricture. Increasing experience demonstrates that the results are growing better and better, which cannot be said of œsophagostomy; and there is every reason to believe that the successes will become more numerous if it is resorted to as soon as the diagnosis of the disease has been made, and before the powers of the patient are materially impaired. The few deaths do not constitute an argument against its adoption; while "every recovery is a clear gain; and a fatal issue is simply the natural termination forestalled."

The operations which have been practised for cicatricial stricture are gastrostomy, œsophagostomy, internal œsophagotomy, combined œsophagotomy, and retrograde divulsion. Dilatation, Dr. Gross holds, is merely a palliative remedy, and sufficient time has not yet elapsed to test the value of divulsion through an opening in the stomach. Combined œsophagotomy for strictures near the cardia is only applicable to children, and may prove of value in strictures impassible by instruments introduced through the mouth. Internal

œsophagotomy, if performed at all, should be reserved for comparatively recent and short strictures, and œsophagostomy is only applicable when the incision can be made below the obstruction. Gastrostomy, he holds, is the best and safest operation for simple stricture of the œsophagus.

From the great difficulty of managing cicatricial stricture in children by dilatation, which is due partly to the struggles of the subjects, and partly to the disinclination of the parents to distress the child, Dr. Gross holds that dilatation should be resorted to only when the inflammation has subsided, and the denuded surface is in a granulating condition. When the constriction is of some standing, and efforts at dilatation prove fruitless, gastrostomy will prove to be the safest and most beneficial operation for prolonging life. Dr. Gross gives elaborate statistics, based on 271 cases, in regard to operative interference for obstruction of the œsophagus.

Theories of Color-perception. — Dr. Swan M. Burnett, of Washington, D. C., elaboretely discusses in the July number of The American Journal of the Medical Sciences, the various theories of color-perception, and points out that none of them accounts in a consistent manner for all the phenomena of normal and abnormal colored-vision, and that, moreover, there are certain objections on physical grounds which, with our present knowledge of the laws of molecular and wave-motion, are insurmountable. He advances a theory which he thinks meets the requirements of the case in the light of recently acquired knowledge. He holds that it is essential to do away with the idea of the retina as a differentiating organ, and that it should be looked upon simply as receiving and transmitting structure which shall give up faithfully to the optic nerve the impressions made upon it by the waves of the luminiferous ether. These impressions are carried by the nerve to the brain and are there properly differentiated and converted into sensations. He believes that by this means all the phenomena of color-perception and color-blindness can be explained in a natural and consistent manner without the necessity of imagining new tissues, or novel or unusual reactions of these tissues to light. Dr. Burnett considers the retina to be a substance whose ultimate structure is such as to allow it to respond at one and at the same time to a large number of ethereal vibrations; at least such a number as shall be presented by the clearly distinguishable colors of the spectrum. His theory, Dr. Burnett holds, explains the phenomenon of defects in color-perception, and receives support from biology and embryology.

The Treatment of Obstruction of the Eustachian Tube must, of course, be varied according to the cause which has produced the condition, outside of syphilitic causes. Ladreit de Lacharriére (Union Médicale) employs iodide of potassium, internally and externally; internally in doses sufficiently large to produce a naso-pharyngeal catarrh, which is characteristic of the effects of the iodide of potassium; externally as an ointment to the mastoid process and as a spray or in solution to the mucous membrane, several times daily. After a few days of this treatment, air is successfully forced to enter the tympanum; when former efforts at this inflation failed completely. When all of these methods have failed and produced no effect whatever and an energetic air douche does not open the tube, there is nothing left but to have recourse to a surgical operation.

On Opening and Drainage of Abscess Cavities in the Brain.—The antiseptic method of operating and after-treatment has not as yet been fully tested in operations upon the brain. This is natural, for not only have we inherited a just dread of dealing with an organ the large majority of whose diseases are dangerous or fatal, but, our knowledge of the physiological functions of the brain and of their pathological modifications being extremely limited, we are not in a position to form such an accurate diagnosis as calls for

surgical interference. Drs. Christian Fenger and E. W. Lee, of Chicago, in an extremely interesting paper on this subject in the July number of the American Journal of the Medical Sciences, consider the treatment of traumatic cerebral abscess, and report a case which was successfully treated by opening and drainage.

Bergman, in discussing the treatment of cerebral abscess, unhesitatingly sets it down as an axiom that wherever there is an accumulation of pus, trephining is most clearly and indubitably indicated, for the opening of an abcess in the brain is as necessary as in any other part of the body, and we would add even more so. A correct diagnosis of abcess having been made, the further difficulty presents itself of locating it with sufficient accuracy, so as to be able to find it. A number of cases are on record, in which a correct diagnosis had been made, the trephine also put on more or less at the right place, but the knife or trocar being passed into the brain, it nevertheless missed the abscess. Drs. Fenger and Lee show by their case, that this difficulty can be obviated by multiple exploratory aspirations, performed at intersticcs sufficiently small to prevent any abscess from escaping detection,even if the trephine opening should not have been made at the point of the skull nearest the abscess.

There are on record a large number of cases of cerebral abscess, in which trephining was performed, pus evacuated, and temporary relief obtained; but later relapse followed, and a fatal termination ensued. It is possible, judging from the success the practice has met with in the treatment of abscesses in other situations, that drainage of the cerebral abscess-cavity, with or without washing out, would have saved some of these cases, by preventing the reaccumulation of pus and continuous infection of the surrounding brain tissue, the acute œdema of which is well known to be, as a rule, the final cause of death. As far as Drs. Fenger and Lee are aware, draining and washing out of cerebral abscess-cavities has heretofore never been tried; that it can be effected and without any detriment to the patient, is shown by their case, the treatment of which they hold strictly conforms to the rational methods of modern surgery in treating abscesses in general; and because of this, and not because their patient recovered, they regard the case as answering affirmatively the question. Is it probable that abscesses in the brain can be treated advantageously on the same principles as abcess in other parts of the body?

A Dinner Given to Dr. Robert Koch. —The following is from the special correspondent of Berlin to the Canada Medical and Surgical Journal:

It must, indeed, have been a proud moment for the whilom district physician, Robert Koch, on the evening of the 13th inst., when some 500 of his brethren met to do him honor on his return from India and Egypt. The reception was, as remarked to me by one of the privat-docents, unprecedented and unparallelled in Berlin. It was, indeed, a gay festival. The guests assembled in the ante-room of the Hôtel-Central at 6 p.m., and a little before 7 o'clock Prof. Bergman, the chairman, entered with Dr. Koch, and the guests immediately adjourned to the winter garden of the hotel, where eight tables had been prepared. To the right of the chairman sat Dr. Koch, Prof. Virchow, Dr. Struck of the Public Health Department, and Professors French, Leyden, Schrœder and Bardeleben; to the left sat the two assistants on the commission, Profs. Dubois-Reymond, Hirsch, Volkman, (of Halle), and Küster. Prof. Bergman, after greeting the guest of the evening, and congratulating the commission on its safe return, referred to the pride which all felt, from the Kaiser to the lowest citizen, at the fresh honors to German science which had resulted from the labors of Dr. Koch. "It was not," he said, "the courage with which you went forth to investigate the fatal plague which we admire. Many of those about me have done the same thing. He who (Virchow) went to Sperrat and Schliessen, to the typhus epidemic, threw his life on the hazard just as much as the man who examines the body of cholera patients in the dirty huts by the Ganges.

Not one of us, indeed, would tarry a moment to think of our own health when the life of a patient is concerned. The device of our profession is that of the candle—'*aliis serviens ipse consumor.*' " "Nor do the consequences which are expected to follow blind us, as they do many who now cry 'hosanna,' thinking that there will be no more cholera; with us it is different. Our recognition of the value of your work would not have been changed in the least had the fatal disease followed hard upon your heels and entered Berlin with you." "We marvel, also, at the ceaseless industry of our colleague, who does not know how often the spirit of a country physician is broken, and his thinking powers weakened, by the endless round of visits. The reality of the waggon-rattle fits badly with the ideal of scientific work. But the district physician of Wollstein knew how to glean some hours from the restless and driving activity of practice, and, in the space of ten years, has concluded the series of brilliant observations from the discovery of the spores of the bacillus anthracis to that of the common bacillus of cholera."

These extracts will give but a feeble idea of Prof. Bergman's stirring address. Then followed two congratulatory addresses from the chief medical societies of the city, after which Prof. Virchow delivered a most humorous and characteristic speech. Dr. Koch's reply was extremely modest; he claimed only to have discovered improved methods of observation. He believed that one important result of the commission would be, if the English Government gave proper assistance, the limitation of cholera to its native place in India.

The Government has voted Dr. Koch 100,000 marks (25,000 dollars), and there is some talk of establishing a public health department in the University and making him Professor of Hygiene. Dr. Koch is about 40 years of age, a graduate of Gottingen I believe, and for many years was the district physician in Wollstein, in which position he made his earliest investigations, and began the improvements in methods which led to the discovery of the bacillus of tuberculosis. This feature of his career is particularly pleasing, and it reminds one of that other country physician who, nearly a century ago, made the memorable observations on cowpox.

Professor DaCosta states that the best treatment for true diabetes is the dietetic treatment. Medicines are only secondary. With a proper diet the patient may be kept alive for many years, without it sugar is constantly forming, and the progress of the case is rapidly downwards. All starchy and saccharine substances should be avoided. As digestion is weak, the amount of fat and butter taken should be lessened. Fresh meats, game, oysters, eggs, green vegetables, currants, strawberries, peaches, gluten bread, or a little toasted wheat bread are allowed. Skim milk may be taken, if agreeable, and a moderate quantity of stimulants may be permitted at meal time. Medicinally, opium is the oldest and best remedy, but as there is a risk of making the patient an opium-eater, Professor DaCosta prefers to give salicylate of sodium gr. x–xx three times a day in glycerine and water or in compound spirits of juniper. When this disturbs the stomach strychnia or iron will be found beneficial. In diabetis insipidus, on the other hand, diet is not of so much importance. The patient can eat anything that is nourishing and digestible. The treatment should be a general tonic one. Professor DaCosta recommends the fluid extract of ergot in one-half to a drachm dose, three times a day, alternating with quina or strychnia.—The Medical Bulletin.

Cysticercus of the Brain.—In the March number of the Archives de Neurolgie, M. Bernard records a case of this somewhat rare affection. The patient was a man, aged twenty-four years, who had suffered from attacks of headache and vomiting for a year when he came under observation. These attacks were accompanied by vertigo and transient loss of vision. Latterly the headache had become constant; there was no loss of

motor power, but the patient staggered in walking, and complained of numbness in the right side of his face and tongue. There had also rapidly ensued impairment of vision. On examination, there was marked retraction of the field of vision, especially on the right side; his color fields could not be taken, the visual acuity was much diminished on the right side. The pupils were dilated, and very sluggish both to light and during accommodation; there was a typical "choked disk" on each side. After his admission to the Salpétrière the vomiting was checked, but he suffered much from headache and from vertigo, and he gradually became quite blind. He died from double pnemonia. At the necropsy, a small sac was found just in front of the optic commissure, but not having any direct relation to it; a second sac was seen depressing the second frontal convolution on the left side; and a third embedded in the wall of the fourth ventricle, on a level with the left eminentia teres. There was evidence of inflammation of the ependyma here, and a general increase of cerebro-spinal fluid. It is to this third cyst that the author would attribute all the symptoms observed. The cysticercus which was found in it measured five millimetres in length, four in width, and three in depth.

Traumatic Cephalhydrocele. — Compound fracture of the skull, especially of its base, with resulting escape of the cerebro-spinal fluid is, as every one knows, a common accident; but the occurrence of subfascial accumulation of this fluid, in connection with and consequent upon simple fracture of the vault, is of such rarity that two cases recorded by Dr. P. S. Connor, of Cincinnati (American Journal of Medical Sciences) will be studied with interest. So far as he has been able to ascertain, there have been reported but 19 cases of subfascial accumulation of the cerebro-spinal fluid after simple vault fracture, and three others where there had been originally a complicating wound of the scalp which had closed.

As far as has yet been observed, excluding those cases which were primarily compound, this traumatic cephalhydrocele is met with only in young subjects. Explanation of this fact is probably to be found, at least in part, in the great elasticity of the skull in infancy and early childhood, permitting of marked depression and fissuring of the vault without that associated wound of the scalp which would be likely to occur were ossification complete; and in part also, in the much closer connection of the meninges and skull in children than in youths and adults.

The decided gravity of these cases is apparent from the statistics. Of the eighteen cases of simple fracture in which the results is known, nine (50 per cent.) died—eight of meningo-encephalitis and one of erysipelas and meningitis; and of the three in which the fracture was originally compound, one died (33⅓ per cent.) of cerebral abscess. Even the supposed recoveries may be regarded with some suspicion, because of too early report.

Dr. Conner draws the following general conclusions:—

1. Simple fracture of the vault of the skull may give rise to a collection under the scalp of the cerebro-spinal fluid; coming, it may be, only from an opened ventricular cavity.

2. Such traumatic cephalhydrocele may be developed quickly, or only after the lapse of a number of days or even weeks.

3. The condition is one that has thus far been noticed only in young subjects.

4. The accident is quite likely to prove fatal from lepto-meningitis or meningo-encephalitis.

5. Operative interference should be restricted to the removal by aspiration of a limited amount of fluid; and such aspiration should be made only when severe pressure symptoms have manifested themselves.

6. A similar fluid accumulation may occur after closure of the external wound of a compound vault-fracture or of a trephining.

The Tænia Flavopunctata is described by Dr. Joseph Leidy, (American Journal of Medical Sciences); it is rare human tapeworm

which has now been observed for a second time, both occurring in this country and infesting children. It is not improbable that the species is more common than the observations would warrant us in believing, for from the smallness of the worm and the generally prevailing ignorance of the distinction in the more common species, it might readily be passed for immature portions of these.

Cortical Lesions of the Brain.—Dr. M. Allen Starr, of New York, (American Journal of the Medical Sciences) has collected the American cases of lesions of the central region of the brain, and carefully studied their localyzed symptoms. He finds that—

Disturbance of general sensation—including, the sense of touch, pressure, pain, and temperature, together with the sense of the location of a limb—may occur either in the form of subjective perceptions of such sensation without objective cause, or in the form of impairment of these sensations. In either case it indicates a disease in the central convolutions, and possibly in the adjacent portion of the parietal lobules. The power of voluntary motion of the muscles of the opposite side of the body is located in the two central convolutions which border the fissure of Rolando. Motions of the face and tongue originate in the lower third of this region; motions of the arm, in the middle third; motions of the leg, in the upper third.

Spasms in, or paralysis of, a single group of muscles may indicate disease of its motor area. Extensive spasms or paralysis may indicate a large area of disease in this region, but if more marked in a single group of muscles than in others it may indicate a small focus of disease in the motor areas indirectly and coincidently. Paralysis following spasm in one group of muscles is a characteristic symptom of disease in the central region.

Disturbance of the power of speech indicates disease in the convolutions about the fissure of Sylvius on the left side in right-handed persons, and on the right in left-handed persons. If the patient can understand a question and can recall the words needed for a reply, but is unable to initiate the necessary motions involved in speaking, the disease is probably in the third frontal convolution and in the adjacent portion of the anterior central convolution. If the patient cannot recognize spoken language, but can repeat words after another, or can use exclamations on being irritated, the disease is probably in the first temporal convolution. If the patient can understand and can talk, but replaces a word desired by one that is unexpected, the disease is probably situated deep within the Sylvian fissure, or in the white substance of the brain, and involves the association fibres which join the convolutions just named.

On the Pathology of Paget's Disease of the Nipple.—Drs. Louis A. Duhring and Henry Wile, of the University of Pennsylvania, give in the July number of The American Journal of the Medical Sciences an instructive study of the pathology of Paget's disease, which has already evoked some discussion. The importance of the subject is apparent, and it ultimately resolves itself into the question of distinguishing between ordinary eczema of the nipple and another similar cutaneous pathological process which on good grounds is believed to lead to the formation of malignant disease of the mammary gland. The affection is regarded by Drs. Duhring and Wile as an abnormal proliferation and degeneration of the rete, with secondary destruction of the papillæ of the corium, and subsequent development of scirrhus cancer of the atrophying variety. The cancerous change originates in the epithelium of the smaller ducts, and advances from below upwards and outwards as far as the skin is concerned; later it attacks the gland structure; and the retraction of the nipple is an early sign of carcinomatous change.

The Cholera Scare.—It is positively humiliating to realize how little genuine sense the human species display in the face of any possible danger.

Some few years ago when there was a gen-

eral exodus on the part of the negro in search of some vague "land of promise" from the Southern States, many were the expressions of sympathy for the ignorant simplicity which some of them displayed. But surely an ignorant simplicity of a still more pitiable type is being displayed by some of our Gallic brethren across the ocean. If the telegrams which we receive are correct, we learn that on the event of some two or three dozen deaths from, say Asiatic cholera, three-fourths of a city leave their comfortable homes to install themselves among strangers at an inconvenience to themselves and those upon whom they intrude their presence,which can only be realized after their insane scare has given way to a period of lucidity. Supposing it is dangerous to stay at home under such circumstances it is more dangerous to go away from home. It is more dangerous to the rest of the world and more dangerous to one's own family. In the event of sickness invading a family away from home, who has not lamented the disadvantage there is in combating the affection? The comforts of life can be obtained nowhere, even at any price, as they can at home; and then the chagrin and disappointment which is the inheritance of the responsible persons when the reaction occurs may be sufficient to lower the system to that degree that makes disease possible. There is also another view of the case which facilitates the conception of the evil associated with this disposition to a stampede on the slightest approach of danger. We are such creatures of example, so few of us act on our own definite knowledge or from well concerted plans that the facing of a certain amount of danger becomes a positive duty on the part of parents as a mere matter of education to their children. More than three-fourths of all the suffering of the world is the result not of actual pain but of the fear of pain, and it becomes a matter of self-interest on the part of parents as far they themselves are concerned and of duty toward the children they undertake to educate to look any threatening danger in the face, not only to make the best of the inevitable for themselves but as a matter of education for their children to enable them to meet similar danger with still greater coolness. The removal to the cities of the North in the case of yellow fever epidemics bear no relation to this stampede, because it is known that the affection is not developed in the northern latitudes, We have nothing to say whatever about the probabilities or otherwise of the appearance of cholera here in America, simply because our opinion would be of no value, but should it come we trust our people will display more fortitude than has been evinced by the reports from France.

Idiosyncrasies Relative to Certain Drugs forms the subject of an excellent address before the Middlesex S. Dist. Med. Soc. by Dr. H. M. Field from which we extract the following:

Iodide is so prolific in individual constitutional disturbances that we leave the subject with reluctance, but can give space for but little further remark. The power which idiosyncrasy, indeed, may assert in this connection is well shown by Hutchinson's observation, who has repeatedly seen doses of only half a grain produce definite symptoms of poisoning in the course of a couple of days; and yet has known a person to swallow one and a half ounces a day of the best Apothecary Hall iodide for a week together without any especial effect except the production of a degree of lassitude.

The morpholgy of skin eruptions, under varied constitutional iodism, presents a wide range, and may obtrude problems hard to solve. In one instance an infant was treated for small-pox by "an experienced and sagacious surgeon," and kept carefully quarantined for a month, to present in the end only a case of iodide of potassium poisoning. A man was treated in hospital for syphilis, pretty surely killed by iodide of potassium, and then declared never to have had syphilis at all. Such experience as this is calculated to enforce the eleventh aphorism of Arnoldus, which asserts that the "wise and conservative physician never hastens to have recourse to medicine *nisi necessitate cogente.*"

The misinterpretation which follows has its amusing side. In 1862 the dermatologist Bazin, of Paris, published a description of a new form of skin disease. for which he proposed the name "hydroa." Others observers followed with similar accounts. Later, an authority objected both to the term and to the claim of novelty, and pronounced the disease a variety of "urticaria bullosa." It was not till some time after 1870 that proof was afforded that all were alike at fault, and in "hydroa" was recognized only an extraordinary idiosyncrasic sport of iodine.

One illustration more. It has been lately pointed out by a French author that the medicinal employment of the oil of turpentine may occasion a condition of the kidneys which causes the urine, on chemical examination, to simulate albuminuria. This fact is alluded to in my recent monograph on The Balsamics, and a simple device given by which the error can be set aside. In a volume of papers by Dr. Seguin, of New York—Opera Minora—published the present year, a corresponding charge is brought against the iodide of potassium as respects microscopic examination of the urine. He reports three cases attended by conditions which warrant the statement that iodide of potassium "may give rise to the formation of hyaline and epithelial casts without (there being) albuminuria or other rational symptoms of Bright's disease." This so far as I know, is the latest observed—as well as one of the most singular—freaks of idiosyncrasy in the conduct of this versatile drug.

CONTRIBUTIONS.

LAWS DETERMINING SEX.

BY ROBERT FUNKHOUSER, A. M., L.L. B., M. D.

Read before the St. Louis Medical Society, May 31.

[CONCLUDED.]

From a review of the comparative anatomy of animals, and above experiments I deduce:

First. In animals in a normal condition *two* testicles are always present as a rule.

Second. That the determination of sex depends upon the zoosperms of the testicles.

Third. That the ovaries, of which two are not always productive of, as in birds and monotremeta, are secondary in importance and entirely *passive* in the determination of sex, but they exert a potent influence in determining the psychical nature of the future being.

Though we have made great progress in ascertaining the laws which determine sex by vivisection, we will now endeavor to apply this knowledge acquired, in experimenting upon animals which have not undergone mutilation. This mode of experimentation (i. e.), mutilation, of course cannot be adopted in respect to human beings, but whatever benefit will accrue from experimentation on lower animals the former should be the first to receive it.

The testicle and ovary receive nourishment from their respective sides of the body and the elements (the zoosperms and ova) elaborated therefrom, represent in the future being, in a greater or less degree, the characteristics from their respective organisms, as all the cells of the body participate indirectly in the for atmion of the anatomical elements from which the future being is formed.

Now there exists a great attraction between the products of the testicles and the products of the ovaries. This obtains in the greatest degree and intensity between the ova and the zoosperms of the corresponding sides, for instance between the *left female* ovum from the *left* ovary and the *left female* zoosperms, *i. e.*, those derived from the *left* testicles; and also between the *right male* ovum from the *right* ovary and the *right male* zoosperms, *i.e.*, those derived from the *right* testicle.

Darwin has demonstrated the existence of this same law in the fertilization of plants. When different varieties of pollen are mixed together and applied to the stigma of the pistil, it displays its powers of selection and will take one particular kind *only* from the several varieties, there being always *one* for which it has the greatest affinity; should this not be present, it will be content with the one that comes next to that for which it has the greatest attraction.

This affinity I believe depends upon electro-physiological laws which as yet are not fully understood.

It is known that Galvani and Matteucci discovered electrical currents in animals, and DuBois Raymond, of Vienna has demonstrated the existence of these currents in his own person by the use of the galvanometer.

We are well aware that the elements in chemistry are composed of atoms that are divided into positive and negative, according to

their electro-chemical character, the distinction being relative. The two classes of phenomena, *i. e.*, those existing in physiology and those in chemistry, are similar.

My experiments that follow demonstrate that the combination and union of physiological elements are assisted in a great measure by gravitation in depending upon the *position* of the female after coitus.

I accordingly placed a slut that had been impregnated on her right side *immediately* after coitus, holding her in that position for nearly an hour until sufficient time had elapsed for the zoosperms to reach the right cornu of the uterus. The pup produced was a *male.*

This and similar experiments, I repeated quite frequently, from which I deduced the law formulated farther on, in determining the sex, and always with satisfactory results; the sex being in every instance that which was desired and anticipated.

A bitch in heat was impregnated by means of injecting into the uterus seminal fluid, collected from a dog. She was forced to remain lying on the *left* side for one hour. In due time she gave birth to a *female* pup.

From these experiments I make my

Fourth deduction, *viz*: that the *position* of the body (on one side or the other), of the female during a certain length of time after a fruitful coitus determines the *course* of the zoosperms.

I am convinced that the zoosperms do not take the length of time to reach the ovary we have been taught to accept. From some experiments on bitches, from personal observations and the observations of others, I am led to believe that a much shorter time is consumed in the passage of the zoosperms to the ovum. I have found zoosperms in the cornu of a bitch in less than an hour after coitus. From the observations of Beck, Litzmann and others, which I have had an opportunity of corroborating, there was demonstrated a suction force of the uterus; which, as a rule, exists, though there may be, and very likely are, cases where impregnation occurs without this action of the uterus. In these latter cases, a longer time would be taken for impregnation to occur, as this action would be wanting to facilitate the entrance of the zoosperms into the uterine cavity. The time occupied would depend materially upon the part of the genital tract at which the union of the elements was consummated; conception, however, usually taking place at the ovary.

Where the orgasm is experienced simultaneously by both parents, the zoosperms would enter the uterus more readily and their passage to the ovum would occupy a comparatively shorter time than under other conditions not so favorable. Such a congress as above, I would designate as a *mutual* one, and conception would be more apt to follow, provided the ovum has been, or is about to be, liberated from a Graapian follicle.

The activity of the ovaries, and testicles also differs at different times, and differs in different persons. We know that the female is not impregnated by each and every sexual congress. This may be due to the non-maturation of a Graafian follicle; it may be from disease, or from obstruction, or it may be from an antagonistic state between the two elements; in other words they may not be complemental to each other. In the lower animals, the testicles, like other organs, are very probably intermittent in action, and not always co-ordinate with each other, i. e. do not act with equal energy nor act simultaneously. I believe this holds true in respect to human beings. To verify this opinion I operated upon a dog, dividing the vasa deferentia. During the sexual orgasm and otherwise, I distinctly observed that the discharge from the ends of the divided ducts was not emitted at the same time, nor was it emitted in the same quantity at different times. This intermittency of physiological function is seen in the action of the liver and other glands of the body. This physiological action of the testes would play a most important role in the reproductive phenomena of the lower animals, particularly in those that have no vesiculæ seminales.

In animals in which the powers of generation is less complex, as in osseous fishes, the ova are impregnated externally to the body of the female by the semen of the male, which is emitted loosely into the water, and those germ and sperm cells unite which have the greatest attraction, or affinity for each other.

Birds that pass an ærial life, possess two sensitive papillæ only, which are merely capable of juxtaposition. During copulation, the fluid escapes separately from each papilla, in all probability not simultaneously, assisting thereby the principle of sexual selection.

In all classes of animals this principle of affinity is carried out in reproduction, but modified according to the requirements of each class.

The zoosperms, having entered the uterine cavity in their further passages, are aided by the action of the cilia of the epithelium and the natural gravitation of the spermatic fluid to the most dependent part; and as the zoosperms continue their journey, (those of the corresponding side in all likelihood taking precedence) and ultimately reach their desti-

nation, the principle of elective affinity, or attraction, controlled by electro-physiological law is finally asserted; this attraction, however, being greatest between the products of one testicle and the product of the corresponding ovary,

Therefore, if one ovum only is liberated from the *right* ovary and the zoosperms from both *right* and *left* testicles reach the right ovary about the time the ovum is discharged, the zoosperms from the *right* testicle would impregnate the ovum in preference to the zoosperms from the *left* testicle, as there exists a greater affinity between the products of the corresponding sides. By other experiments the converse was confirmed.

The *position* of the female body is of the *utmost* importance in the practical application of the laws governing sex.

We will now consider the results of the foregoing experiments in their application to the human family. Unless these should prove to be entirely erroneous, they unmistakably indicate:

First. That the sex can be determined, and

Second, that they indicate the manner of its accomplishment.

In those instances in which a *male* is conceived, the conception is the result of the union of the product of the *male* (i. e.), the *right* testicle, with the ovum either of the *right* or *left* ovary; or to express it more scientifically the union of the *right male* zoosperm with either the *left female* germ cell or *right male* germ cell.

Difference, however, would exist in the natures of the *two males* produced. In case of the latter, the result of the union of the *right male* zoosperms with the *right male* germ cell, would represent a *typical*, *natural*, *perfect male* being. The other, the result of the union of the right male zoosperms with the *left female* germ cell, would represent an imperfect male being, and deficient in so far as it would partake more of the feminine influence or impress of the female over the male element.

Again where a *female* child is conceived, it is the result of the union of the *left female* zoosperms (i. e.) from the *left* testicle with either the *right male* germ or the *left female* germ cell.

In the former case the resultant of the union of the *left female* zoosperms with the *left female* germ cell, would represent a typical representative of a *natural*, *perfect female* being. In the latter, the result of the union of the *left female* zoosperms with the *right male* germ cell, would represent an imperfect being, and deficient in so far as it would partake more of the male impress or imprint than is intended in the female organism (for the average typical female).

I believe in the vast possibilities of the education of a child in utero. Both mother and father can and do impress the child before its birth, and influence the bent of the child's mental, physical, and moral characteristics. I do not wish to be understood as saying that the typical and non-typical children so designated in this paper, are not influenced more or less by each individual parent. Much will depend upon the force and vitality of each parent. It is noticed that children, all things being equal, best adapted for the struggle for existence are, produced by a father of an active positive nature, and a mother of a passive nature; while children born of parents of like natures do not have the same inherent advantages in the battle of life. Too much attention cannot, therefore, be paid to the education of the child both before and after its birth.

The union of the two elements of the corresponding sides is facilitated by the position of the female *immediately after* coitus.

There exists a greater attraction, the electro-physiological law above referred to, acting more strongly between the products of one ovary with the products of the testicle of the corresponding side.

In this is illustrated the doctrine of elective affinity or attraction, and is one of the many instances of natural selection found in the evolution of life.

So that, given two persons, male and female, with healthy organs of generation and the child desired a *boy*, the female should lie on her right side for fully an hour after a *mutual* (as defined above) sexual congress, for if conception does not take place within that time, the zoosperms, howevér, will have arrived at that part of the genital tract (fallopian tubes) along which they will subsequently pass to the destined ovary, when conception will occur.

If a *girl* is desired, the mother should lie on her *left* side immediately after coitus for the same length of time.

When nature is not directed in the manner indicated for the determination of a specified sex, or interfered with the, child born will frequently be the result of the union of the products of the testicle of one side with the product of the ovary of the opposite.

In the case in which the male has but one testicle, the children resulting from sexual congress will be of the same sex, but will differ in their natures, provided, however, the children are the products of fertilized ova from *each* ovary of the mother.

One will represent a typical child, another

will represent an imperfect being and deficient in so far as it partakes more or less of the nature represented by a typical male or female child. If two beings, male or female, who are formed by the union of the sperm and germ elements of opposite sides, should marry, their offspring, if conceived after the same manner, will show these marked characteristics in a much greater degree. Examples of these are seen every day in masculine women and feminine men. It is seenmanifested in some trait, qualities, deportment appearance, manner, etc.

It is possible, however (as in the cases cited above in which I refer to the one from the Russian religious sect as being possible, and the case of the dog with one testicle, the father of a male and female dog), for a man, from whom one testicle has been removed, to beget a child by the discharge of zoosperms from the vas deferens or vesicula seminalis of the side corresponding to the testicle extracted.

The question may arise what becomes of the superabundance of zoosperms (*male and female*) from which some unite with the ovum to determine the sex of the future being. So far as investigation has gone, it is generally conceded that there is always a superfluity of the zoosperms by means of which the ovum is impregnated and those that are unessential, are absorbed or disappear, in what manner is not, as yet, known. I believe, however, that the sex is determined by the zoosperms passing into the ovum through mecropyles or stomata which unite with the germinal spot, and those have the preference which possess the greater affinity for the product of the corresponding ovary. In all probability one zoosperm sufficient. Molecular union ensues from which the future being is evolved.

For a number of years I have made many observations in different families seeking after facts pertinent to this subject, not only in regard to the children already born but in giving advice in the production of children expected or hoped for.

I have collected many notes and received letters from patients and individuals who have taken an interest in the matter. In not a single case, where the directions given were carried out, have I met with any instance that would controvert the doctrines promulgated. In making inquiries and observations relative to this subject, I have been struck with the prevalence of custom and habit, practiced by the husband and the wife in respect to the side of the bed occupied by each. In some cases for years they would rarely change.

Take for instance the case in which the wife is in the habit of sleeping on the right side of the bed and the husband on the left side of the bed, during coitus, the parties will face each other. In cases like the above, in nine out of ten, the wife after sexual congress, will turn over on her *right* side, remaining so for a time.

In those cases in which impregnation follows coitus, a boy will be the result.

The above is one among the many instances observed in my investigations in the matter, and indicates very forcibly, how this unconscious determination of sex on the part of parents is accomplished.

The laws are simple; indeed their simplicity may well excite our astonishment that they have not been recognized before, since the phemena have existed for ages and will continue to exist down to the last pulsation of recorded life.

In conclusion, I desire to state that this paper is but a syllabus of a more extended publication, in the preparation of which I am now engaged: and also to acknowledge my indebtedness to the works of Darwin, Haeckel, Owen, Bradley, MacAllister and others.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

REPORTED FOR THE REVIEW.

Stated meeting, June 7th, 1884.

GRANULATED LIDS IN A COLORED WOMAN.

DR. WILLIAMS.—I will mention a case of a young colored woman who has common sore eyes or granulated lids; so far as I remember this is the first case of granulated lids I ever met with in a colored person. It is very strange that negroes are almost entirely exempt from this disease; why it is so is more than I can tell. This patient was a full-blooded negro. I mentioned the fact as a matter of interest merely on this account; there is nothing unusual about the case.

DR. POLLAK.—It is true they are very rare; still I had a case which has been published. I have had a case of trachoma with granulated lids which I treated with my favorite remedy, jequirity, with excellent success. It is rarely, however, that we meet with such cases, this is the first I have met with in a colored person; I am glad that Dr. Williams has met with another case. I have had a case also among Mongolians, so that none of the races are absolutely exempt; though it is more rare among the colored and among the Mongolian races than among the Caucasian.

Dr. Dudley.—Has the doctor any theory why colored people are exempt?

Dr. Pollak.—No, sir; I have no theory; I cannot assign any reason for it. I simply state the fact as such. This was the first I ever had; I saw this patient some time last winter; I gave a description of the case in a paper published in the Am. Journal of Ophthalmology.

Dr. Williams.—I have no theory in regard to the matter at all. I don't know why it is so, it is a fact all the same. I have never met with a case of gonorrheal ophthalmia in a colored person; whether they are exempt from gonorrheal ophthalmia or not I am not able to say, but certain it is I have never seen a case of the kind in a colored person. Neither have I ever met, so far as I recollect, with a case of opthalmia neonatorum in a colored child; so it is possible that the colored race is also exempt from this whole class of diseases, that is these affections which affect the conjunctiva.

Dr. Love.—This statement of Dr. Williams recalls to my mind that during a number of years, and particularly when in charge of the venereal wards in the City Hospital and also City Physician, that it was exceptional to find, and has been since exceptional for me to find, a colored man suffering with gonorrhea; he is much more apt to have chancre and chancroids. They are very prone to venereal diseases, so I think—my observation has been that, taking into consideration the absence of cleanliness and care, it is surprising that they do not have gonorrhea more frequently; and this taken together with the statements that have been made by Drs. Williams and Pollak would suggest that their mucous membranes are much less susceptible to inflammatory conditions than in whites. Dr. Dorsett is here and as he has abundant opportunity of observing the colored race I would like to hear from him as to his observations.

Dr. Dorsett.—I think the reason we don't see as many cases of gonorrhea among colored people is due to the fact that they seldom seek medical assistance. They allow it to go on until the gonorrhea runs out and they get well, and we never know anything about it. In regard to whether they have granulated eye-lids or not I know nothing about it except that I recall to mind one case that I saw in Dr. Green's clinic when I was a student; that was a chronic case of granulation of the eye-lids. I see him on the street every once in awhile; he has been troubled with this disease for years, and it is a very obstinate case.

Dr. Love.—The point the doctor has suggested as an explanation of the fact why we do not see gonorrhea I do not think tenable, for we know that the colored man above all others cannot bear pain. If he suffers he seeks relief, he has the greatest dread of pain of anybody I know of, and I don't believe that a virgin case of gonorrhea would be neglected by the average colored man; I do not think they are as hardy as that.

Dr. Post.—Granulating eye-lids in the colored race is certainly very rare. I know the statement is made that it never occurs among these people, and, bearing the statement in mind for at least two years, I have seen quite a number of colored people with eye troubles and I do not recollect to have seen a single case of true granulated lids in a colored person. There is this to be said, that we see comparatively few colored people—the ratio of colored to white people is really small, so we might be led to draw false conclusions if we sought to establish a principle. One of the common results of true granulations is the incurvation of the tarsal cartilages, and I am quite positive that I have never seen a case in a negro resulting from granulated lids. With regard to gonorrheal ophthalmia in a colored person I do not recollect a case in an adult, but only to-day I saw a case of ophthalmia neonatorum in a colored child. Whether it was a case of gonorrheal ophthalmia or not I am not sure; it has all the appearance of being so; the colored race is subject to ophthalmia neonatorum. This, however, has occurred in a patient of mixed blood, and the ophthalmia may have attacked the white portion.

Dr. Hendrix.—Whereas the colored race is perhaps not so susceptible to gonorrhea, the white race seems to be peculiarly so, and water-closets seem to be very favorable places wherein to contract it. I had a patient to-day, an old man about 75 years old, perhaps older, suffering from gonorrhea, and he said he might have got it in the water-closet. He has been a widower for six years, and had no other means to contract it. I don't know that this has any bearing upon the subject at issue, or that it will help settle the question with regard to the colored race, but I thought I would suggest that my observation is that the white race is peculiarly susceptible to the disease, and that it is generally contracted in the water-closet.

Dr. Johnston.—It has been my experience, and I have had considerable experience with colored people, that they are not exempt from gonorrhea, and neither are the children exempt from granulated eyelids. I have seen a

number of cases in which children were born and a few days after active suppuration appeared in the eye-lids, being what I call gonorrheal ophthalmia. I have seen one or two cases of negro children in this city, one at least pure blooded, the other mixed, in which granulated lids occurred; so that from my experience I should say they are about as subject to these diseases as the whites.

Dr. Whitwood.—I don't know anything about those things in the colored race, but I was among the Indians for some time, and I know they are more prone to granular lids than the white people; one-third of them were afflicted with conjunctivitis. I attributed it a good deal to the smoky lodges they lived in. They also paint around the eye; I always supposed that had a great deal to do with it; there are very few Indians who do not suffer from it; particularly among school children granulated lids are very common. It is also prevalent among the older people; I have seen some fearful cases of it.

Dr. Johnston.—For some time I thought negroes were never subject to sun-stroke until I saw one or two cases in this city. I never saw a case of puerperal convulsion in negroes up to some few years ago. Until that time I thought the negroes were not subject to sun-stroke or puerperal convulsions. These are the only two cases I have ever seen in my practice.

Dr. Williams.—I saw some time ago an old negro man in this city who had a sun-stroke during that hot season we had some four years ago; he fell down insensible and remained so for an indefinite time, he didn't know how long he lay because he was alone; after he got over the sun-stroke, apparently his optic nerve became involved, and he is now totally blind as the result of the sun-stroke; so that, while negroes rarely suffer from sun-stroke, it does occur occasionally.

Dr. Hurt.—I do not remember ever having seen granular conjunctivitis in colored people. I am a little inclined to think, since the subject is mentioned, that it is rare. I have had some experience among the Indians, and it does not occur to me that ophthalmias of any kind were particularly prevalent among those tribes with whom I was acquainted. Now and then I did observe some cases of what I conceived to be gonorrheal ophthalmia, but do not think that diseases of the eye were as prevalent as among the civilized races; that might have been owing to the fact that, not being accustomed to use their eyes, as educational people are, their eyes are not so frequently overtaxed. That, however, ought not to make so much difference so far as granular lids are concerned. I do not remember ever seeing but one case of ophthalmia neonatorum in a colored child; and so far as I could learn it was not gonorrheal in its origin. It occurred in this city and the child lost one of its eyes, I questioned the mother very carefully in regard to her health previous to the birth of the child, and I attended her in her confinement. I was inclined to think that the nurse in washing it injured its eyes by scraping and rubbing it with strong soap suds. I think it better probably if soap were never brought in contact with the face at all, and if soap is used it ought to be preceded by a good anointing with lard or some other mild unguent. I usually, where the nurse proposes to use soap, advise her to anoint the child thoroughly with fresh lard before applying the soap; in this way the irritating property of the alkali of the soap is to a very great extent neutralized. There is one peculiarity about the colored race that my attention has been called to very frequently, and that is a redundancy of the prepuce, that would predispose to gonorrhea. I think it is a fact that can be corroborated by every physician present, that in the African race there is more frequently a redundancy of prepuce than in any other race of mankind. There is another peculiarity, that is their high susceptibility to the syphilitic virus. The negro who has a chancre is almost invariably syphilized.

Dr. Post.—The question of the susceptibility of the colored race to gonorrheal poison is not affected by the question of their proneness to trachoma, because trachoma is not a trouble of the mucous membrane, and this statement which I quoted, namely, that the African race is exempt from trachoma, is made by one who makes a distinction between trachoma and papillary conjunctivitis. True, we frequently see papillary conjunctivitis in the colored race that might be mistaken for trachoma by one who is not familiar with the distinction, so that the red granular appearance, the discharge of pus, and the eyelashes matted together, etc., would not be sufficient evidence of the presence of trachoma.

Dr. Atwood.—Without statistical information it would be impossible to say whether the Caucasian branch of the human family is more susceptible to gonorrhea than the African. It is the result of my observation that if you take into consideration the very great disproportion which exists between the African and Caucasian varieties of the human family in this city, you will find as many cases occurring among negroes as among whites. For many years I practiced in the vicinity of

plantations upon which there were large numbers of negroes and I saw among them many cases of gonorrhea. I have never seen a case of granular conjunctivitis in a negro.

Dr. Johnson.—I have arrived at the conclusion that this disease we call gonorrhea is nothing more or less than neglected cases of leucorrhea in females; that this secretion from the mucous membrane becomes degenerated, and coming in contact with the atmosphere, and perhaps some lower origin of the germ life—having connection with the opposite sex where the organ is susceptible the male is inoculated by the female. The disease we call gonorrheal inflammation does not in my opinion differ from any other active inflammation; in other words I believe that gonorrhea is not a specific disease, it is apt to occur in a female who neglects to wash herself and who is in the habit of having intercourse with the opposite sex. When the atmosphere comes in contact with these secretions from the male they become ichorous from the process of putrefaction dependent upon germ life. Neonatorum ophthalmia in children depends upon the secretion of the female. There is nothing in that whereby we should use the word gonorrhea; it has only been a distinction which has been made from the days of John Hunter down. I think syphilographers of the present day have more or less come to the conclusion that gonorrhea is the consequence of leucorrhea in the female, and dependent upon germ life, and the conclusion must be arrived at that gonorrhea is a disease resulting from germ life. I presume there is not a man in this house who will attempt to draw a line of distinction whereby a man can tell a case of ophthalmia neonatorum from a gonorrheal one, because the disease does not pass through precisely the same process in one child which it does in another; it is more active in one than in the other As regards Dr. Hurt's view that a long prepuce would produce gonorrhea it will not if the parts are kept clean, though a man with a long prepuce will be more subject to gonnorhea than a man who had been circumcised, and because the secretion from the female will be more readily retained with these germs in it which may produce balanitis, and perhaps it may produce urethritis in the mild form, because the contamination is not so severe as that which is contracted from matter directly. And as regards negroes, I think if you take the ratio of population and also remember the fact that they are neglectful of cleanliness, that they are perhaps more subject to it; and as regards syphilis it seems to me the effects are just as severe as in the white race; but as regards their being more sensitive to pain that is not the fact carried out in physiology, because the higher the organization, the higher the physiological development, the higher the nervous system, the greater the sensation, the greater the sensibility to external objects, therefore the negro can stand more pain and more punishment than a white man, provided he has sufficient amount of brain; having less brain, the nervous system being less developed, he is not so subject to a great number of diseases that the white race are, therefore he is not so subject to malarial fevers, and why? Because his nervous system is not as easily contaminated, because external objects present no subjective process, they are not so subject to these external influences; the negro is not so subject to all these forms of diseases as the white man, neither is the monkey so subject to syphilis as the negro; but yet the monkey is subject to syphilis and gonorrhea, the diseases the species homo are subject to.

Dr. Love.—I appreciate the observation and experience of my friend Dr. Johnston, I have no doubt he has had considerable experience with the colored race. I have no doubt that he has had more personal experience as to the amount of suffering in that direction than I have, but I will say this: The points I made were based upon my observation of the exclusive colored ward in the City Hospital for a long time. As compared with the white ward, almost all of the troubles from which the colored wards suffered were venereal in character. In the venereal department of the whites were a large number of gonorrheal cases among the colored there was almost none, that has been my observation. I have had no personal experience as to the amount of gonorrhea which prevails among the colored people, at least not as much as some of the gentlemen. I have observed for a number of years that blondes more frequently have gonorrhea than brunettes, and I think the same reason that would cause a blonde to have gonorrhea more frequently than a brunette is probably that they have more sensitive mucous membranes, and so also we would infer that brunettes had more sensitive mucous membranes than blacks. We all know that physiologically the mucous membrane is simply a modified skin, we know that it is the skin minus the epidermis; we know that brunettes have a coarser skin and a thicker epidermis, and we would suppose a more sensitive mucous membrane than blondes. I think physiologically we can explain why the colored people are

not so susceptible to gonorrhea as some, as we can explain why brunettes are not so susceptible to gonorrhea as blondes. We know furthermore that the majority of colored people have long prepuces; we know furthermore that they are more filthy, and we would suppose that they would have gonorhea more frequently for that reason. There is no question about the matter of a long prepuce increasing one's susceptibility to gonorrhea for the reason that the surface of the mucous membrane, or the epidermic surface which cannot see the light of day and which would accumulate the natural secretions there, would render that surface more susceptible to irritation, more susceptible to inflammation, more susceptible to inoculation. While I am speaking on the subject I will call attention to the fact that Dr. Hodgen in his lectures on that very point, upon the operation of circumcision, used to say that a long foreskin was essentially a clap-trap, and there is no question about it. Take your experience and observation among the Jews; in fact the practice of circumcision together with the Mosaic law against eating pork were among the most wise laws, for the reason that they rendered the individual less susceptible to venereal disease among that race, and particularly less susceptible to gonorrhea. Dr. Johnston suggests that the colored race in consequence of their sparsity of nerves and their less highly wrought nervous system are therefore less disposed to disease; well that every point would antagonize the point he made that they were very susceptible to the disease. I think that the lower the grade of organization the less tendency there is to venereal disease. We have that illustrated in the inability to inoculate the lower forms of animal life, and I think that perhaps it is one of the explanations for the absence in the colored race of this disease; I do not think there is any question about it, notwithstanding these gentlemen who have had an immense amount of experience among the colored race seem to think differently; I do not think there is any question, but what they are less susceptible to gonorrheal disease of the mucous membrane than the whites.

Dr. Bremer.—I haven't had much experience among negroes and haven't treated many cases of gonorrhea among that race; still I think it is certainly as prevalent as among the white race. The reason that the opinion prevails that there are not so many cases of gonorrhea among the blacks originates, I think, in the fact that they are not so prone to be treated, they are more negligent than the whites; they don't care so much as to the consequence; they run around with their gonorrhea, and nature in the majority of instances will effect a cure. I have certainly seen in negroes some very bad cases of stricture and some very bad cases of urethral fistula the result of stricture. I don't believe that the negro enjoys to any great extent exemption from gonorrheal affections that have been ascribed to him by some gentlemen here to-night. I have heard the opinion expressed that the virus which produces gonorrhea is not specific in character; in the light of modern science such assertions will not hold water. Gonorrhea, as well as syphilis and tuberculosis, or erysipelas and a number of other diseases, pneumonia for instance, are due to an organism which has been separated and cultured. The organism that produces gonorrhea belongs to the class of micrococci and has been examined from fresh cases of gonorrhea and put under the necessary precautions, antiseptic glasses that other organisms cannot live in, into sterilized glasses with nutritive material, say for instance gelatine or the serum of cow's blood, and in a few days, three or four days after, a more minute part of this material was taken and transplanted to another; they generally took a test tube, prepared in the same manner and then again from this it is transplanted to another test tube; and so on until the 7th, 8th, 10th or 20th series was reached. Now then repeating so many transplantations it is not supposed that any of the original virus has remained, because only a very minute quantity is taken from each of the test tubes. In Wurtzburg, where this experiment was made on a man suffering from general paralysis and being in the last stage of the disease was inoculated; three days afterwards he had gonorrhea inoculated with cultured micrococci which was put under the microscope, and there was nothing but the micrococci. It was introduced into the urethra and a typical case of gonorrhea was the result. Some students for the sake of science lent themselves to the experiment and the same result followed, therefore it is now a question no more whether a simple leucorrhea can be productive of gonorrhea in the male, but it is a settled fact that leucorrhea is simply a non-specific inflammation, whereas gonorrhea is a specific inflammation due to a particular corpusculent being—living organisms, the micrococci.

Dr. A. Green.—Urethritis is not necessarily specific, it may arise from an irritation, because the mucous membrane is liable to take on a simple superficial catharrhal inflamation from leucorrhea or any other irritation of a non-specific nature which has no infection for its cause, and this may pass off without

any treatment whatever, but what we call gonorrhea is a specific disease and is never produced by irritation alone without infection.

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STRICTURES OF THE ŒSOPHAGUS.

DR. DEAN.—I present some pathological specimens, and while there is nothing new connected with them they may be of interest.

P. D., aged 57, native of Germany, laborer, 7 years in the city, was admitted to the Hospital November 20th, 1881, nearly starved, covered with bites of vermin, suffering from rheumatism and eczema of the whole face and chest. Was discharged July 5th, 1882, free from rheumatic pains, general health very good, and only a few scattered spots of eczema on the face. He was readmitted July 11th, 1882, for general debility, chronic alcoholism, and eczema. Was again discharged well December 12th, 1882. Was readmitted March 5th, 1883, with the eczema of the face, and discharged May 15th, 1883, well. Was again admitted August 3d, 1883, for diarrhea, eczema not marked. Was discharged August 11th, 1883, well of the diarrhea. Was readmitted April 28th, 1884, for debility and cancer of the œsophagus, very plainly marked in every symptom as being in the lower third. Patient could not swallow liquids without the greatest difficulty, and the ear, placed at the back, could distinctly make out that the drink stopped with a thud considerably above the diaphragm. Patient died June 4th, 1884, of inanition. Post-mortem showed the lower 15 cm. length of the œsophagus involved its whole circumference, so that only the slightest fluid could trickle through.

* * *

GALL STONES AND CYSTIC DEGENERATION OF KIDNEYS.

C. G., German, 50 years of age, laborer, one year in the city, was admitted to the hospital May 18th, 1884, for rheumatism. He complained of pain in his joints of about four weeks' duration, and that he had had the same affection three years before. Patient was very much debilitated. On the 23d he complained of pain in the epigastric region, and vomited very freely. He complained of no tenderness on pressure in the abdominal region. Slight albumen in the urine. On the 31st he became unconscious. On the 1st he winced and gave a grunt of pain when I pressed over the hepatic flexure or over the splenic flexure of the colon; had sordes on his teeth, tongue coated and dry, lips dry. He had never complained of any pain that could be compared with that produced by the passage of gall-stones. Particularly after death there was a tinge of icterus. Post-mortem revealed quantities of gall-stones in the common duct, and the several concretions some three cm. in diameter in the intra-hepatic ducts. The gall bladder greatly distended with fluid, but containing no stones. The common bile duct was larger than the aorta, which latter was of normal size. The kidneys weighed respectively 550 and 700 grammes, and had undergone almost complete cystic degeneration, as you see. These cysts contained clear fluid, or a thick dirty brown fluid containing what appeared under the microscope precisely like kreatinine obtained by the zinc-chloride process.

ILLINOIS STATE BOARD OF HEALTH.

The regular quarterly meeting of the Illinois State Board of Health was held at Springfield on July 2, 1884. Present—Drs. Haskell, McKensie, Kreider, Rauch, Newton and Bateman. Dr. Geo. N. Kreider, of Springfield, appointed to succeed Mr. Reen, of Peoria, resigned, was introduced. The minutes of last meeting of April 17 and 18, read and approved. The Board went into executive session on certain cases of colleges and practitioners under the Medical Practice Act. The following quarterly report of the secretary was presented:

During the quarter ended June 30, 1884, there were received in the secretary's office 604 communications, letters, papers, etc., exclusive of 197 diplomas submitted for verification, and the affidavits and other papers accompanying applications for certificates in 226 cases. There were sent out, during the same period, 327 letters, postals, circulars, etc., and other communications, and the usual quantity of the Board's publications—reports, registers, preventable disease circulars, epidemic disease blanks, forms of ordinances, etc. Two hundred and forty-two packages were received, and 212 sent out, by express. Seventy-three telegrams received and 102 sent.

Certificates entitling to practice medicine and surgery, under the Medical Practice Act, were issued to 170 graduates upon diplomas of colleges which have complied with the requirements of the Board, entitling them to be classed as in good standing and to 4 upon length of practice in the State. Under the authority conferred upon the secretary at the last meeting seventeen applicants for certificates, holding diplomas of colleges which had not fully complied with the Board's requirements, have been notified that they would have to submit to examinations on the branches or subjects omitted by their respective schools. In nine of these cases the applicants have already been examined and certificates issued; five of these were examined in hygiene only; three in hygiene and general education; and one on all the branches, including general education. Three declined to appear to be examined and have left the State and the remaining five are now awaiting their examination.

Examinations of five midwives have been made and certificates issued to three of those who passed

successfully, and seven to others upon diplomas and licenses, or other recognized credentials.

THE MEDICAL PRACTICE ACT.

Since the last meeting of the Board, the Dr. C. Buell Rice to whom a certificate was refused at the special meeting of January 30 has been tried and convicted of practicing in violation of the Medical Practice Act. The case was tried in the Sangamon County Court, May 19, before his Honor, Judge Matheny. The defense set up the plea that, being a graduate of a "legally chartered medical institution in good standing," the defendant was entitled to a certificate; and that it was not competent for the Board to inquire into the moral or professional character of such graduates. On the part of the prosecution it was shown that charges had been presented to the Board, alleging that Rice was in the employ of, and associated with the "K. and K. Surgeons," a firm of advertising quacks of Cincinnati and elsewhere, and that, in various ways connected therewith, as recited at the special meeting, January 30, his conduct was unprofessional and dishonorable, within the meaning and intent of the Medical Practice Act; that, upon these charges the Board had refused to issue Rice a certificate until he had disproved the same; that, instead of making any attempt at such disproof, Rice continued to practice; whereupon he was arrested for practicing without the necessary certificate. The facts were admitted by the defense, but, as already stated, the Court was asked to dismiss the suit on the ground that it was obligatory on the Board to issue its certificate to the possessor of a genuine diploma of any "legally chartered medical institution in good standing, regardless of the moral or professional status of the individual." This the Court declined to do, but found the defendant guilty, and assessed a penalty of $50 and costs. Notice of appeal was at once given by the attorneys for the defense, but this was subsequently abandoned, the fine and costs were paid, and this last representative of the "K. and K. Surgeons" has left the State.

While this decision again affirms the right and duty of the State Board of Health to inquire into and determine the status of individual practitioners, a decision by the Supreme Court of the State, rendered May 20, sustains the right of Boards constituted as is the State Board Board of Health, to determine the status of a college. Under the Act to Regulate the Practice of Dentistry in Illinois, the Supreme Court refused the petition of a dentist, one Isaac N. Sheppard, for a writ of mandamus to compel the State Board of Dental Examiners to issue him a certificate or license based upon a diploma of the Indiana Dental College The Board refused the license on the ground that the College was not a "reputable" institution. It was argued that the law constitutes the Board judges of the standing of a college, and there is no power of review vested in any other body.

"If the Board should arbitrarily or unreasonably abuse their discretion, and refuse a license without any reason therefor, there is a remedy for such abuse of discretionary power." But there was no ground for claiming that this was the case in the present instance. The Board, in its judgment, had decided that the curriculum of study and requirements for graduation of the Indiana Dental College were not such as to entitle it to be classed as a "reputable dental college" and there is no power in the law given to any person or body to review and set aside, or confirm, the exercise of this discretion by the Board. The petition for a mandamus was, therefore, denied,

It is also noted in this connection, that two colleges which the Board has long refused to recognize as in good standing have recently met with signal and final defeat in their effort to secure a legal rehabilitation. The New York Court of Appeals has affirmed the judgment rendered by the Supreme Court of that State, about a year ago, in the case of the United States Medical College of New York, setting aside the charter of that institution. As this appeal was understood to be taken as a test case by the attorneys for the Buffalo College of Physicians and Surgeons, this decision is to be regarded as conclusive on this college also.

There have been fewer complaints made direct to the Board, of unprofessional conduct, and fewer cases of this kind otherwise coming under observation, during this quarter than ever before in the history of the Board. The man J. E. Anderson, of the "American Surgical Institute" of Indianapolis, previously run out of Paxton, Tolono and elsewhere, was arrested in Freeport, on the 9th of May, for practicing in violation of the law. The case was clearly made out, Anderson pleaded guilty, a fine of $60 and costs was assessed, which he paid, and at once departed for his Indiana home. A list of some fifty of his victims in the northern part of the State has been furnished me. About the middle of June an itinerant, by the name of Riley, was arrested in Dixon for violation of the law, and was bound over for trial.

Two of the Chicago quacks, arrested for circulating obscene and indecent literature through the mails, have recently been tried in the United States District Court, and fined $200 each, with costs. One of these cases was an aggravated one, many of the vile pamphlets having been sent to school girls at various places. I do not hesitate to pronounce the penalties inflicted in these cases as totally inadequate. Although the stereotype plates and the editions found were understood to have been destroyed, one of these men is already again distributing his "Hidden Secrets." The only way to suppress these violators of public decency and morals is to imprison them.

MEDICAL EDUCATION.

At the annual meetings of the various medical organizations, State and National, which have been held during the past three months, the subject of the preliminary education of medical students has received more than usual attention. Almost unanimously, the individual members of the profession, and these various organizations as units (with one single exception) have pronounced in favor of exacting proof of proper preliminary education before admitting candidates to the lecture classes. There is practically no opposition to the movement, the only dissentients now remaining being a few members of college faculties influenced, probably, by a fear of diminished classes. With few exceptions—and these diminishing in number from to time time—the better class of colleges have already adopted this requirement. Every announcement for the session of 1884-85, thus far received, makes this a distinctive feature, but it is to be wished that the colleges would state specifically in their announcements the kind of examinations applicants would be subjected to, or the proof of fitting education required, instead of merely saying, as many of them do, "a preliminary education is required."

As illustrating the wide-spread influence of the

effort to heighten the standard of professional acquirements, it may be stated that, at a recent meeting of the Nebraska State Medical Society, the qualifications for admission to membership were so amended as to require that applicants must be graduates of colleges which in all respects conform to the standard of minimum requirements of this Board.

In the further interest of medical education, I think it the duty of the Board to exert its influence toward securing legislation for the proper and adequate supply of material for the study of practical anatomy. Colleges in this State have been embarrassed, during the past year or two, in their efforts to properly instruct their students in this most important branch; and the difficulty is increasing. Surgical knowledge add skill cannot be acquired without an intelligent, practical study of anatomy; and in order to secure this, the methods and sources of the supply of material need to be more definitely recognized and regulated by law.

THE PUBLIC HEALTH.

Scarlet fever and small-pox prevailed to some extent during the first half of the quarter, mainly in the southern portion of the State. Except the few cases in Chicago, and those in Kendall county, all the small-pox cases occurred in the south half of the State, but scarlet fever was more generally diffused. Both diseases have been of a mild type, with a moderate death rate. As the season advanced, there has been the usual increase in the diseases of hot weather, but not characterized by any noteworthy features.

Although eight cases of small-pox have been brought into Chicago from other places since January 1st, 1884, only one case was contracted from any of these by a resident of the city.

Three of the eight cases were Indians brought in from the Indian Reservation; two were from Indianapolis; one from Cincinnati, and two from the town of Cicero—said to have been contracted from a tramp from Ohio. One of the Indianapolis cases reached Chicago four days before the appearance of the disease, and from him resulted the only case which originated in the city—a man with whom he slept one night contracting the disease from him. In no other case was there any spread of the disease; and the methods of dealing with cases as they appear, the details of disinfection, the general vaccinal protection of the community—especially of the 70,000 school children and the large number of poor people—are so thorough and perfect that Chicago, notwithstanding its immense railroad travel and large number of transients, is now one of the safest cities in the Union in this respect.

At the close of the last quarter small-pox existed in Centralia, Marion county; Charleston, Coles county, and Coulterville, Randolph county. Owing to municipal neglect and a mistaken idea of economy, the disease obtained a foothold in Centralia, which it subsequently required great effort to overcome, besides creating alarm and apprehension in neighboring communities. The disease was conveyed from this place to Irvington township in Washington county; to Bellerive in Jefferson county, and to Springfield. The first case in Centralia, it is stated, was treated by Dr. Alexander Jones, whose certificate the Board revoked at the January meeting, for unprofessional and dishonorable conduct. It is alleged that Jones treated the case without any of the necessary precautions; not reporting it to the authorities, nor in any manner guarding against the spread of the contagion. The patient was treated during the entire illness, in a room separated only by a curtain from a shoe shop on one of the most frequented streets of the town, and the shop was daily visited by numbers of persons. It is believed that all the cases in Centralia—32 in number, with 6 deaths—as well as those in Washington, Jefferson and Sangamon counties, are primarily due to the criminal conduct of this man. The Board has exhausted its authority in dealing with him by revoking his certificate, since he claims the ten years prior practice clause of the Medical Practice Act. In charging him, however, with being primarily responsible, it is not meant to exonerate the municipal authorities from all blame, for, as early as the 8th of March, they were duly notified of the existence of a case resulting from this first concealed case.

From the tramp who carried the disease into Charleston, Coles county, as reported at the April meeting, there resulted five other cases, making a total of six cases and three deaths. The first of this last group of cases was a man who visited the tramp, denying that the latter had small-pox; in the usual time he came down with the disease, and died on the thirteenth day.

At Coulterville, Randolph county, also mentioned in my last report, there were five cases, with one death in the first outbreak, which was caused by a negro roustabout who had contracted the disease on the river. Notwithstanding a rigorous quarantine of isolation and other precautionary measures, some obscure cases of varioloid followed this first outbreak; and, through failure to correctly diagnose the early cases of this second group which were not characteristic, the disease still continues. The condition of affairs at this place, and a conflict of opinion as to some of the cases now under treatment, led me to visit the locality personally on the 28th of June, when I found two well-marked cases, one of small-pox and one of varioloid. The severer of these two—and which will probably prove fatal—was in Perry county, just over the line; but instructions were given to the Coulterville authorities to extend their quarantine jurisdiction so as to embrace this case, and to vaccinate or re-vaccinate all persons in the comprised area, who had not been successfully protected within the last two and a half years. The spirit manifested by the village authorities, the physicians and the citizens whom I met warrant the belief that this outbreak will now be soon suppressed. I communicated also with one of the county commissioners and the county clerk of Perry county, and the county commissioners of Randolph county, and feel assured of their cooperation and assistance.

The outbreak at Yorkville, Kendall county, previously alluded to as having been just reported at the close of the last quarter was due to a young man recently arrived from New Orleans, who had an unrecognized case of varioloid. A large number of persons were exposed before the facts were known, and a total of nineteen cases, with four deaths, resulted. So much excitement was caused by the first group of these, some fourteen in number, eleven of which appeared in rapid succession between March 27th and April 2d, and in several localities, that I found it necessary to visit the town personally. The published instructions of the Board were thoroughly carried out, a supply of vaccine virus was obtained, and all unprotected persons were at once vaccinated. Notwith-

standing the number of the centers of infection, only five more cases resulted—the last being after an interval of nearly a month. The speedy suppression of the outbreak, which promised to be very serious at the date of my visit, was due to the prompt and efficient co-operative action of the authorities of the four separate jurisdictions in which the cases appeared. The detailed reports of these cases have been received, and from them the usual state of facts concerning vaccination is found; that is, that of the four fatal cases, three had never been vaccinated at all, and the remaining one had had small-pox when young, and had been vaccinated "seven or eight times unsuccessfully—it never would work"—owing probably to the previous attack of small-pox, the protection from which seems to have been exhausted prior to this last exposure. Of the fifteen who recovered, two had never been vaccinated at all; one, not until after the febrile stage of the disease had begun; and four others, not until after exposure. All these recovered, as did also the remaining eight, who had been successfully vacinated at various periods prior to exposure. None of those attacked had ever been re-vaccinated.

There have been seven cases of small-pox, with two deaths among colored steamboat hands at East St. Louis, all contracted on the river. These cases were removed as soon as discovered from time to time, to the St. Louis small-pox hospital. About the last of May I received a communication from the Health Commissioner of St. Louis, stating that the East St. Louis patients were the only ones then in the hospital, and that the institution was kept open solely for the benefit of the latter place. While this is technically true, the relations of the two places are such that what is done for the one, in such a matter as this is really done for both. However, I again visited East St. Louis and discussed the situation with the authorities, and am glad to be able to state that a board of health has since been organized and the burial-permit ordinance prepared by the Board has been adopted.

Isolated cases of the disease have also occurred during the quarter, at Mound City, Pulaski county, one case, probably contracted on the river, no spread at Red Bud, Randolph county—one case, contracted in Cairo, no spread; in Irvington township, Washingthn county—two cases, contracted in Centralia, and one from these in the person of the nurse, who had had the small-pox when young; at Belle River, Jefferson county—one case, contracted in Centralia, no spread; in the country, six miles south of Nashville, Washington county, one case, contracted in Coulterville, and from this four more cases in the same family; in Ashmore township, Coles county—one case, contracted in nursing an unreported case on the county poor-farm, patient had had small-pox when young; and in Springfield, Sangamon county—one case, contracted in Centralia, and not recognized until after death, so that there will probably be other cases from this, although the usual precautions were at once taken, when the character of the illness was discovered. At the close of June another group of three cases is reported in East Fork township, Clinton county, five miles southwest of Patoka and sixteen miles north of Centralia, where the disease was contracted.

Although the contagion has been repeatedly introduced into Illinois from without, during the past winter and spring, we have been fortunate in escaping it by immigrant introduction, thus far. Neighboring States have been less favored—Iowa, for example, having now a serious outbreak, upwards of twenty cases in one county—all among immigrants landed at Baltimore, from the steamer Salier, of the North-German Lloyd's Line. The want of appropriations, whereby the National Board of Health might continue its Immigrant Inspection Service is seriously regretted.

With regard to further action concerning small-pox, in view of its epidemic spread from abroad, as shown by its increasing prevalence in London and elsewhere, and its frequent introduction into the State from neighboring States, I would suggest that it is desirable to call the attention of sanitary authorities and others to these facts and to the experience of the last few months, which shows that when the disease is introduced into a community where vaccination and re-vaccination were not not thoroughly carried out during the recent epidemic, there is still danger of serious trouble. It is also important that County Superintendents, school-boards and others interested should have their attention again directed to the fact that the School Vaccination of the Board is permanent and continuous and that its thorough enforcement is expected so as to prevent any accumulation of unprotected or imperfectly protected scholars, from term to term. To this end I think it necessary to again print and distribute copies of the Order, with necessary instructions, together with supplies of certificates and blanks for returns to be made through the county superintendents by the first of January next.

Cases of glanders and other infectious diseases continue to be reported to the Board. On the 18th of June, Dr. C. N. Cooper, of Batavia, Kane Co., reports having a patient under treatment, suffering with glanders, and wishes instructions and advice as to his actions. The amended pleuro-pneumonia and glanders act has by no means relieved the Board of responsibility in these cases. The public naturally apply to the health authorities in matters pertaining to health and thus far the State Veterinarian is only reached in a large number of cases through this office. Whether further legislation is necessary on this subject, and what form it should take are matters which seem to require the consideration of the members.

CHOLERA.

An epidemic spread of Asiatic cholera now seems imminent. What is known as the Damietta outbreak failed to secure a foothold in Europe last year, and with the exception of a few isolated cases in Russia and one fatal case at the Smyrna lazaretto—all in July, 1883—it is believed that the disease, from this outbreak, was confined to the Delta of the Nile. France, it is true, was threatened by the arrival at Havre, of the steamer St. Bernard, in June last, with one case on board; but preventive measures were successfully instituted on that occasion and the evil then averted. About the first of May, 1883, the British troop-ship Crocodile was reported in quarantine at Portsmouth, England, having then had eight cases of cholera on board, six of which proved fatal; but on this occasion also the disease seems to have been confined to the infected vessel. The French have been less successful in their recent precautionary attempts, if it be true, as is now alleged, that the Toulon outbreak was due to the fatal case on board the transport Montebello from China—the infected clothing of the case not being destroyed. Later advices state that the disease was brought from Egypt in the troop-ship Sarthe. It has al-

ready spread to Marseilles, the villages above Toulon, and cases are reportied n Italy and elsewhere.

Whether the disease will cross the Atlantic from the East will largely depend, of course, upon the efficiency of the measures employed to confine the contagion to its present localities. Very general activity is manifested by all the European governments and sanitary authorities; and it is to be hoped that they may prove successful, although the dissenting opinions of the English authorities as to quarantine may lead to friction between them and the continental authorities. Meanwhile we are theatened not only from Europe, but from the opposite side of the globe, cholera seeming to be spreading in China, and to have broken out in Japan.

In view of this condition of affairs I have thought it my duty, on behalf of the Board, to urge that the organization of the National Board of Health should be maintained, and have advised to that effect, hoping that it may be possible to still secure the necessary appropriation for this purpose in the Sundry Civil Service bill. Should cholera continue to spread on the continent it is more than likely to find an entrance into this country, despite the efforts which may be made by local and State authorities to exclude it by quarantine regulations. Want of uniformity, failure to co-operate, commercial considerations, and local conditions all combine to impair the efficiency of any system of quarantine; and the present emergency furnishes another argument for the continuance of the National Board of Health, with adequate appropriations and increased power and authority.

As to what should be done by us as a Board in the present aspect of affairs, I would say that my own experience and observation lead to the conclusion that it is not judicious to place entire reliance on quarantine measures, no matter how administrated, should the disease become epidemic in countries or ports with which this country has close commercial relations. Asiatic cholera, although it may invade places in good sanitary condition, finds its most congenial habitat where filth, in any form abounds. The best attainable sanitary condition—clean streets and premises; the prompt and proper disposal of organic refuse, night-soil and all forms of sewerage; well ventilated habitations with dry, clean basements; a pure and sufficient water-supply; and good individual hygiene, including personal cleanliness, a proper diet, and regular habits of life—these are the best safeguards against Asiatic cholera, as they are against most diseases. If it should, unfortunately, appear in a locality whose sanitary condition is good, as thus outlined, there is every reason to anticipate its prompt arrest by well understood measures—thorough isolation of cases, disinfection of discharges, etc. Cholera is pre-eminently a disease to be fought by sanitation.

Professor Koch's recent researches, by which he has demonstrated the existence of the cholera bacillus, promise something in the way of special prophylaxis; and in so far as this in a direction to which a great mass of empirical knowledge points it may be worth while calling attention to this feature. I allude to the practical point, which Koch has demonstrated, of the development of the cholera-baccilli in alkaline moisture, and its arrest or destruction by acids. If further experiments confirm this proposition the preventive treatment of Asiatic cholera may come to be a matter of as much certainty as the prevention of small-pox.

As to our own immediate action in the premises I have to suggest that the attention of the sanitary authorities throughout the State, be officially called by the Board to the necessity of promptly securing the best attainable sanitary condition of their respective localities. A thorough sanitary organization of the State with the view of improving its general sanitary condition is one of the matters to which the Board may now profitably give its attention. The Board is now, at the end of the first term, in a position to give this subject more consideration than heretofore; and it is entirely possible that such an emergency may present itself as will make this of the first importance.

YELLOW FEVER.

With the exception of recent reports of the reappearance of the disease at Guaymas, Mexico, where it prevailed extensively last year, and of some increase in the number of cases in Havana, there is an encouraging absence of yellow-fever indications in the South up to date. A conference of representatives of the Boards of Health of the Gulf States was held, at the request of the newly organized Louisiana State Board of Health, in New Orleans, on the 2d, 3d and 4th of June; the object of the conference being to bring said boards into harmony and, if possible, to devise and recommend improvements in the systems of quarantine in vogue along the Gulf coast. Representatives of the General Government, of the Auxiliary Sanitary Association, and of the various commercial organizations of New Orleans, were also present by invitation. The proceedings were characterized by moderation and a gratifying display of mutual confidence and desire for thorough co-operation. Many practical suggestions were made, and, on the whole, the conference would seem to promise more of benefit than anything of the kind which has occurred of late years in that region—provided, the means necessary to put into effect the wishes and intentions of those concerned be forthcoming.

Meanwhile, as already stated at our last meeting, the Sanitary Council is prepared to adopt, if it should become necessary, the same line of action in regard to the prevention of the introduction of yellow fever, or other epidemic diseases, into the Mississippi Valley, as that pursued in 1883.

SANITARY CONFERENCE.

In accordance with the authority given at the last meeting, I attended the conference of representatives of State Boards of Health, held during the recent session of the American Medical Association in Washington. An organization was effected, officers elected, and plans adopted for securing co-operative action by the various boards in the event of any emergency arising which threaten the sanitary interests of any of the States in common. Meetings will be held during the annual sessions of the American Public Health Association for the interchange of views and the furthering of the plans and objects of the organization.

[TO BE CONTINUED.]

It was a good pathologist who gave three reasons why his patient could not get well, but it was a better who against all reason rescued him.—H. M. Field.

THE WEEKLY MEDICAL REVIEW.

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MEDICAL ETHICS.—In these days a journal is nothing unless at some time or another it has something to say in regard to the ethics of the profession. It is not, however, of the National code that we write at this time. So much has already been said in regard to it, and by so many, that it is useless for us to attempt to add anything. We do not belong to that class, however, who regret that the code of ethics was written. We would be happy if we could feel that every member of our profession cultivated the "ethics of the heart," making a written code unnecessary. But we know they do not, and the code as promulgated years ago, even in our day, has been a most valuable aid to a great number of physicians. We do not interpret the code as a law for the medical profession, but a *set* of *rules*, particularly suggestive, and in the main worthy to be followed. It is, however, with local ethics that we now call attention. Neither birth, education, medical colleges, nor foreign travel can make some men gentlemen. There are certain members of our profession who are naturally inclined towards quackery, who are naturally selfish and ungenerous. A number of very able men in our ranks are constantly on the border line between regular and irregular medicine. These men are constantly doing things which lessen the respect the public has for the profession, lessen their own influence in the profession and destroy about all the respect the profession has for them. We come in contact with these men in different ways. Many live entirely in the past and are forever speaking of what they were before the war, and we read in the public print of these same men who formerly occupied this or that position, in this or that city. Their reputations, at least in their own estimation, were made in the past. To this class of men undoubtedly belongs the one who was the subject of the sketch in the REVIEW of May 10th. The gentleman, who, according to his own statement, has received a most complete education, has practiced extensively for many years, has occupied positions in medical schools, etc., etc., all in the past, now desires practice in a new field and has taken a method of obtaining it which, at the very threshold of his professional career in that city, ostracises him for a long time, if not forever, from his medical brethren. Belonging to this same class are those who are constantly getting themselves into the public prints in connection with some surgical operation. It is within the memory of the present generation of medical men to have read something like this.

"Dr. A, assisted by Drs. B C and D, performed a most difficult operation upon our esteemed townsman, Mr. E. A tumor weighing 40 pounds, was removed, the surgeon in charge displaying the most remarkable skill and dexterity. The patient passed a very quiet night and is doing well." Members of our profession sometimes resort to the practice of feeing nurses, railroad men, and bell-boys in hotels, which is equally derogatory practice. If these men knew the unsavory reputation which such actions engender, they certainly would be very slow to employ them. It really has seemed to us that some of the gentlemen who are practicing in our midst, who are graduates of foreign schools, have made the greatest mistakes of any practitioners with whom we have come in contact. Some of the most unprofessional acts, and those very closely allied to the practice of quacks and charlatans, are performed by these men. It is charitable to suppose that we either do not get the better class of the graduates of

these schools, or that they are not familiar with the customs and usages of the American profession.

There is yet one other class of medical gentlemen to whom I wish to refer. They are those who are continually giving certificates regarding the wonderful properties of proprietary medicine. If this were an occasional occurrence, or if it was very generally practiced by the profession, custom would allow it to pass unnoticed, but there are a few men whose names, with college designation are found recommending a very large number of these remedies. If one will take the trouble to look over the advertisements of some of these preparations foisted upon the medical public, he will be surprised to find how many remedies are recommended by the same men and how frequently those who read these advertisements are reminded that doctor so and so who finds this combination of such and such value, is professor of such and such a speciality in such and such a medical college. It is not pleasant to criticize some of the older and respected members of the profession, to say nothing of some of those who are not as aged, but it does seem to us, that to all such proceedings as those we have called attention it is about time to call a halt.

Pneumonia.—The collective investigation committee of Great Britain has undertaken to furnish the profession with such views as it can ascertain from observers relative to pneumonia; and the subject was very ably introduced by Dr. J. Burney Yeo for discussion before the Birmingham and Midland Counties Branches of the British Medical Association. (British Medical Journal, June 28, 1884.) After describing at length the micrococcus of pneumonia, as discovered by Friedlander and verified by Emmerich and others, he details at length certain records which tend to strengthen the theory of its communicability from one person to another. He says:

"I should like to call your attention to a few of what appear to me to be the most instructive instances on record of the supposed epidemic occurrence of pneumonia, and its supposed propagation by contagion. And I will first refer to an account, given by Stokes, of an outbreak of what he terms asthenic pneumonia, in Dublin, the cases presenting so marked a typhoid character that he was evidently doubtful whether he was right in calling them cases of pneumonia, though the early occurrence of pulmonary consolidation was undoubted; but the clinical thermometer had not then come into use, and he was without that means of diagnosis. He says: The occurrence of this disease, as affecting great numbers in a particular locality, was observed in this city some years since. The persons attacked were young and healthy men, privates in the constabulary force, who were quartered in the then newly erected barracks in the Phœnix Park; these young men were well fed and clothed, and might be considered as possessing the greatest strength and vigor. It is a remarkable circumstance that at the time of the appearance of this disease, many cases of another and extraordinary affection were observed in the poor-houses and hospitals in and near Dublin. I allude to cerebral spinal arachnitis, and it is important to mention that several cases of this disease occurred in the force contemporaneously with those of pneumonia. The general characters of the pneumonia were suddenness of invasion, and great rapidity of progress, the lung rapidly passing into hepatization. (Stokes on Diseases of the chest. Sydenham Society's edition, p. 303.)'

"Another interesting account of an epidemic of pneumonia is given by Surgeon-Major Costello, of the Bengal Medical Department. On joining the 1st Punjab Infantry, at the end of March, 1875, he found a state of alarm there, on account of the number of deaths that had taken place from pneumonia, at a time, too, when the temperature was warm and equable. The regiment had lost from 30 to 40 men, out of 550, in a few weeks. It was almost confined to two companies; and, when it appeared amongst the married, it spread to different members of the family; and, when cases were taken into hospital, it spread to

other patients, ill of other diseases, and to the nurses and attendants. There was always a catching pain in the side, the infiltration spread rapidly through the lungs, and was attended with "typhoid" symptoms. Removal from barracks to tents, isolation of affected persons and their attendants, immediately arrested the progress of the disease. The Third Punjab Infantry lost 60 men from a similar outbreak. He believed it was caused by marching through districts known to be affected with bovine pleuro-pneumonia. (Lancet, January 29th, 1881.)

"But to come nearer home; a very remarkable series of cases, pointing to direct contagion, have been recorded by Mr. Patchett, of Shaw, near Oldham (Lancet, February 25th, 1882). A whole family of five persons died, one after the other, in less than a fortnight, of typical and uncomplicated pneumonia. Four brothers and a sister, all unmarried, lived together on a farm, where they had resided all their lives, which was well and healthfully situated on a steep hill-side, and was in excellent sanitary condition. There was no suspicion of septic influence. The previous health of all the family had been exceptionally good.

The first case seen was on January 13th, 1876, the eldest brother, aged 73; he died on the 16th, after an illness of six days, with pneumonia of the right lung. The day of his death, another brother, aged 66, was found also to have right-sided pneumonia, which extended to the left lung; and he died in three days, on the 19th. On the morning of January 20th, a third brother, aged 63, who was quite well and at work the day before, was found with signs of pneumonia at both bases. On the evening of the same day, a fourth brother, aged 64, felt shivery and cold on going to bed; the next morning he had double pneumonia, and both died on the evening of the 22d. The sister, aged 61, who had been in attendance on all the brothers, and appeared to keep up her health and strength remarkably well, was seized on the 23d with right pneumonia, and died on the 26th.

"This is, surely, a very remarkable record; but there is another, scarcely less so, by Dr. F. H. Daly, of Hackney Downs (Lancet, November 12th, 1881).

"In October, 1879, there occurred in the same house, and within a few days, four undoubted cases of pneumonia; and these followed an illness in another child, who had not been previously examined by Dr. Daly, but who was now found to show signs of recent lung consolidation; so that there were five members of this family, four children and the mother, who nursed them. The mother died, and the grandmother, a healthy woman, 60 years of age, who came to nurse her daughter, fell ill of pneumonia, and also died. There was no question here of unsanitary conditions—no overcrowding, or bad ventilation, or bad drains; there had been no chill, and no prolonged exposure. The husband and three servants, who were but little in the sick-room, escaped. 'My cases,' Dr. Daly remarks, "exactly resembled, in their mode of attack, case following case, and progress, some zymotic disease, contagious from one patient to another.'"

The Care of the Breast as a prophylaxis against mastitis. After insisting on the necessity of cleanliness in regard to the nipple, Dr. Parvin thus expresses himself relative to the details of nursing:

But the labor is over—and here danger comes from too early, too late, too frequent, and too long-continued application of the infant to the breast. To apply the baby to the breast immediately after it is born, washed, and dressed is a mistake,but to delay the application two or three days is a greater one. Let this application be made eight or ten hours after labor, and repeated once in 6 hours until the secretion is established,when the interval may be two hours at first in the day and four or five hours in the night. Feeding the baby ought to be absolutely and positively proscribed, unless in very exceptional cases; for, with its appetite thus half or entirely satisfied, it dallies in nursing, keeps the nipple a long time in its mouth, and thus the skin is as surely softened and

ready to be detached in parts as the skin of any part of the body would be by continuous application of a warm poultice. "Have the infant quit when it gets done," may seem a homely form of expression, but it is a rule of importance. After every nursing the nipple should be dried with a little tissue paper, it should be washed occasionally, and a little cocoa butter or vaseline applied twice a day. If the secretion be scanty and the child vigorous there is danger of the nipple suffering —the strong sucking made from hunger instinct is likely to cause injury of the skin. Of course the prophylaxis here will consist in increasing the milk secretion. Should any abrasion of the nipple occur, the compound tincture of benzoin may be applied to the injured surface, but not to the entire organ. Should great pain be produced when the baby nurses, a nipple shield is to be sought.

It is a very difficult matter to say how long nursing may be continued safely once fissures of the nipple have occurred, how long we may wait hoping to heal them letting the nursing go on. Certainly there is a time when the continuance of the nursing, the nipple being unhealed, must in a given case inevitably lead to mastitis. I do not know the boundary line. This much, however, is certain, that if mastitis occurs the infant must not any longer nurse the affected breast.

Brain Exploration.—The brain seems to promise the next region of investigation for surgical effort. Such investigations will necessarily be greatly facilitated by the rapid progress which has been, thanks to vivisection, made of late in the topography of the brain, and its relations to the more easily demonstrated functions of life. With a definite lesion centered in the cranium which has withstood the experience of the past relative to therapeutics, and the patient's suffering such as to make him clamor for aid, there can be no substantial reason why an exploratory opening into the skull should not be made. The following successful report from the Glasgow Medical Journal gives such a case:

At a meeting of the Pathological and Clinical Society of Glasgow, January 21st, Dr. McEwen showed a patient whose brain had been operated upon for the relief of left hemiplegia, and who has recovered the power of movement to such an extent as to enable her to walk freely about, though with a paraplegic gait, to raise her arm to the level of her shoulder, and to grasp with considerable power, though there is a deficiency in co-ordination of movement of the hand. She had a syphilitic history. The hemiplegia was preceded by a tingling sensation and numbness of the left arm and leg, which increased until it ended, within six weeks from the commencement, in complete motor paralysis and a deficiency in the perception of touch. The left side of the face was also slightly affected. This was accompanied by mental confusion and loss of memory.

Full antisyphilitic treatment had been tried along with counter-irritation to the head, previous to her coming into the Royal Infirmary and while she was in the medical wards of that institution. These did not seem to have relieved in the slightest the condition spoken of above.

Trephining was performed over the middle of the ascending frontal and parietal convolutions. Internal table of the disk removed was found softened and thicker than usual, having on its internal surface a series of projections or roughnesses, some protruding for nearly one eighth of an inch beyond the general level. A second opening was made over the occipital region, and a similar thickening of the internal table was found. Opposite to the first opening the dura matter was paler than normal, and somewhat thickened. It was elevated, and a false membrane of yellow color and about one sixteenth of an inch in thickness was removed. An incision was made into the brain in the direction of the paracentral lobule, when a gush of grumous red-colored fluid escaped out of the opening. Its quantity was not measured, as it could not have been collected. Approximately there would be about a couple of drams. The brain pulsations previously were not discernable, but after the escape of this collection of fluid

it was thought that very feeble pulsations were seen. Some of the surgeons standing by doubted the presence of the cerebral pulsation. The disks of bone were carefully divided into segments and replanted, and are now quite firm. Wounds treated without pus production.

The day after the operation she expressed herself as very much better. On the third day she moved her toes. Within a week she lifted her leg from the bed and stated that she was so much better that she could turn in bed, and believed she could walk. The fingers were moved within a week. Her mind greatly changed for the better, her memory improving and her intelligence becoming much brighter. She can now walk freely about, and does a considerable amount of domestic duty in the ward. She lifts her arm to the level of her shoulders, and can grasp with considerable force.

Dr. Finlayson said that he had lately had the opportunity of seeing this case, at Dr. McEwen's request, in private, and thought that there could be no possible doubt that the improvement which had taken place was due to the operation. It is known that in such cases as this remarkable improvements do take place as the result of purely medical treatment, but in this case it is certain that the improvement was due to the operation. This method was quite a new one, and depended greatly upon the advances that had in recent years been made in cerebral localization. It was quite different, too, in its nature from operations on brains injured by violence. Although the case shown to-night was a very successful one, yet advance in such a procedure could scarcely be expected without a certain number of misfortunes.

Aerated Distilled Water, says Squibb, in his Ephemeris, is about to be put upon the market for popular approval. If the water were heated under a pressure say of one hundred and forty pounds, it might meet with still greater favor. The greater part of the carbonates would be precipitated and then all the microbes would be killed sure. Whereas in distillation they may fly over to get away from the heat, and develop fresh vigor from the warm bath. Seriously, the æration of water heated under pressure in the case of a cholera scare ought to prove a profitable investment.

Effect of the Gastric Juice of the Horse on Certain Seeds.—Observations at Amherst Agricultural Department, by Professor S. T. Maynard, have shown that the germinating power of the seeds of dock, sorrel, daisy, and shepherd's purse, is not destroyed in their passage through the alimentary canal of the horse; but that the seeds are destroyed if exposed to a temperature of from 90° to 110° F., for from five to seven days in a moist compost heap. Dry heat will not do, and the experiments were confined to the above mentioned seeds.

Atrophy of the Optic Nerve occuring in conjunction with spinal affections, according to the experience of Dr. W. Uhthoff, runs its course to complete blindness in from one to three years.

Micro-Organisms in Puerperal Fever.—Pathological anatomy shows that (Amer. Jour. of Obstetrics):

I. The chain-like micrococci have been frequently found in the exudations and in the organs of patients having died of puerperal fever.

II. All observers have noticed the same characteristic variety.

III. Different species of them have hitherto never been described.

IV. It seems as though all who sought for them have been able to find them in every case.

V. More recent researches have shown that besides this chain-like micrococci other micro-organisms, i. e., bacteria, can be found in pueperal fever.

In reference to the same subject, Dr. Carl Somer, assistant of Prof. Schneider, in Berlin, makes the following deductions.

I. Of all new organisms found in puerperal fever, the chain like micrococci seem to be

those to which we should expediently direct our attention and to which we should attach the greatest importance.

II. Where in any case of pueperal fever their presence has been detected in the exudations they have also been found in the deeper organs.

III. They have been found in erysipelas, scarlet fever, diphtheria and pueperal fever, and in each possess the same form, and show the same disposition toward fertilizing fluids and coloring matters.

IV. Although it is very probable that different varieties do exist among these diseases we as yet have no positive proof of the fact.

V. A differentiation according to size is an extremely difficult perhaps hopeless task, but according to manner of growth it may be possible.

VI. Vaccinations with cultivations of those micrococci from different diseases was proved fatal to animals, but has given no typical or characteristic results.

VII. Chain-like micrococci have also been found in inflicted wounds and in the blood of pyæmic patients.

VIII. The pathologic anatomical investigations thus show that these clinically related diseases(pueperal fever crysipelas, diphtheria, scarlet fever and pyemia)posess similar micro-organisms.

IX. Besides the chain-like, four other micro-organisms may be present in puerperal fever, i. e. mixed infection.

X. The presence of these latter in the cadaver does not always prove that they existed in the living body; on the contrary they are often the result of post-mortem decomposition.

XI. It is probable that the processes of decomposition are sometimes present before death actually takes place, different varieties of micro-organisms therefore found; for instance during the death-struggle may have nothing to do with the cause of the disease.

XII. It is as yet impossible to classify puerperal fever as regards course and prognosis according to the varieties of micro-organisms found Doleris, or according to their mode of invasion (Fraenkel).

XIII. In some cases, no micro-organisms have been found, but this does not prove that they do not exist.

Lacerated Perineum Treated by a Single Suture.—Dr. H. J. Lee Cleveland reports in a late number of the Am. Journal of Obstetrics three cases of lacerated perineum treated by a single suture. He agrees thoroughly with Dr. Alloway's plan, but differs from him in the location of the suture, contending that it should always be passed on a level with the beginning of the laceration.

A Woman With Four Breasts is reported by Dr. Fontan. Two of them are normally situated; the other two are somewhat smaller, and are situated two centimeters below the upper ones. The woman has suckled with all four breasts, all of which contained an abundant supply of milk.

Studies of Internal Endometrium is the title of a very interesting and elaborate paper read by Dr. Mary Putnam Jacobi before a late meeting of the New York Academy of Medicine. She opposed the views of Leopold that the endometrium has only an immense lymph sac and contended that it is the essential part of the utero-ovarian system; that there is a continuous inter-menstrual growth;that the development of the uterine parenchyma belong to pregnancy only; that the peri-uterine and ovarian plexuses constitute a reservoir of blood to meet the demands of pregnancy; that this reservoir is reproductive; in menstruation the endometrium grows until a certain point is reached,when growth is arrested by pressure, and the vitality of the surface is destroyed and exfoliation takes place, the metamorphosis affecting the epithelial layer gives rise to rupture of capiliaries and pouring forth of blood upon the surface.

The uterine glands have no functions and are analagous to the depression in the brain called convolutions. The characteristic symptoms of endometritis are all due to malnutrition of

the peripheral extremities of the utero-ovarian nerves from excess of blood. She showed the marked similarity between the symptoms of endometritis and pregnancy; nausea in the disease indicating that that which perhaps began in the cervix had extended beyond the internal os, the links in the semiological train are in regular order; endometritis, disturbances of the spinal cord, disturbances of the medulla and in aggregation a dash upon the occipital portion of the brain giving rise during origin, progress, and destruction, to the multitudinous nervous phenomena during the existence of the disease.

The Attention of our Readers is called to the correspondence page of the Review. We would ask them to read the communication entitled "Encyclopedia of Medical Wit, Humor, and Curiosities of Medicine." Send on the good things you have been laughing over these many years, and let the world share your enjoyment. We are sure our appeal for contributions, and information will meet a ready response.

The St. Louis Medical Colleges have issued their announcements for the coming fall and winter. From the present aspect it appears that the attendance at all of them will exceed that of last year.

The Missouri Medical College will open its forty-fourth annual session with a change in the faculty, Dr. G. M. B. Maughs, Prof. of of Obstetrics and Diseases of Women, has gone to Europe, and though his name still appears in the announcement, it is not probable that he will ever again fill the chair. Dr. P. V. Schenck, clinical professor of Gynecology, who has moved into Dr. Maugh's house and succeeded to his practice, also falls heir to his chair in the college. The selection of Dr. Schenck is a good one in every respect, and he will prove a strong man. This is the only change in the faculty; the course of instruction remains the same, and, as heretofore, two courses of lectures only are required for graduation.

The St. Louis Medical College is worthy of highest commendation in its efforts to elevate the standard of medical education. The faculty is sanguine of the success of the three course system, though as a consequence, the attendance of students has decreased to a considerable extent, still the school has the approval and encouragement of the profession, and there is a good prospect of a steady increase in attendance. The faculty will remain the same as last session. Dr. John Green, whose resignation of the chair of ophthalmology was announced, has been induced to continue in the position. The clinical facilities have been extended, and improvements in methods of instruction are manifested as a result of the three course system.

The St. Louis College of Physicians and Surgeons shows an almost entire change in its teachers. It will be remembered that in consequence of disagreements in the faculty eight of the professors resigned during the last month of the winter course. Temporary arrangements were made for the continuance of the lectures, and notwithstanding some opposition by seceding members and others, the State boards of health of Illinois and Missouri have recognized the diplomas awarded under the above circumstances.

The faculty as reorganized is as follows: Louis Bauer, principles and Prac. of Surgery, clin. and orthopedic surgery, and dean of the college; William B. Hazard, chemistry and toxicology, and diseases of the nervous system; Algernon S. Barnes, obstetrics and diseases of women. These three are the remaining members of the old faculty. The new members are: Jos. G. Lodge and Judge H. Laughlin, medical jurisprudence; W. W. Watkins, prin. and prac. of med. and clinical med.; A. H. Ohmann-Dumesnil, dermatology, including syphilis; Augustus C. Bernays, anatomical and surgical gynecology; Carey B. Ellis, physiology and larynology; Edward M. Powers, accidental and clinical surgery; Ludwig Bremer, histology, and morbid anatomy; William H. Mayfield, materia medica and therapeutics, and hygiene; Julius Wise, diseases of children; Charles Barck, ophthalmology and otology. Adolph Klein-

ecke and Henry Summa are respectively adjuncts to the chairs of gynecology and surgery; C. B. Ellis demonstrator of anatomy.

The two term course will be adhered to with special inducements to students to attend three sessions. In addition to the usual clinical facilities a dispensary will be organized in a populous portion of the city. The college as reorganized presents a strong staff of teachers, and will, no doubt, take a prominent stand among the medical schools of the country.

The new college, of which a prominent Southern surgeon was to have been the head, has not materialized. There is still some talk regarding its formation, but it is of a vague kind, and there is no probability that anything will come of it during the present year.

Taken as a whole the colleges of St. Louis compare favorably with any in the country; they are fully abreast of the time, and are sincere in their efforts to improve medicinal education; their resources are ample, though it must be confessed that the immense clinical material in the various public institutions is not utilized as it should be, or to the same extent as in other cities of the same population. Although St. Louis attracts a great number of students the attendance is not proportionally as large as it should be. There is no doubt of this, and it is indubitable that the lack of system in the clinical departments of the colleges is one of the causes. The city hospital and other public and private eleemosynary institutions should be reorganized upon the basis which prevails in New York, Philadelphia, Cincinnati, and other medical centers. They should be controlled by medical staffs, and daily clinics open to all the colleges be held. A small fee should be exacted for the privilege of attendance and the fund thus obtained should be used in building up a pathological collection, ample departments for which should exist in the city hospital. This is a subject that should be agitated by all interested in making St. Louis a great medical center.

Since the above was in type, we have received the following additional information concerning the Missouri Medical College: Dr. W. A. Hardaway has been appointed Clinical professor of Dermatology, and Dr. Frank Glasgow will teach Clincal Microscopy; both of these gentlemen are experts in their departments, and will materially strengthen the curriculum.

CONTRIBUTIONS.

THE REAL SIGNIFICANCE OF PAIN AS ILLUSTRATED IN THE TWO AFFECTIONS—SYMPATHETIC OPHTHALMIA AND GLAUCOMA.

BY DR. WM. DICKINSON.

Read before the St. Louis Medical Society, June 4, 1884.

It is an axiom in medicine, that a correct diagnosis is indispensable to successful treatment. In some diseases an error in this respect *to-day* committed, may be rectified *to-morrow*, and without serious detriment to the patient; while, in others, on account of their rapid progress, it may be fatal to the integrity of the organ. Patients not infrequently present themselves, who, having lost one eye from inflammation, not remarkable for severity, but in which pain had been the most prominent symptom, volunteer the statement, that "neuraligy had put it out," and that such had been the verdict of the medical adviser: when in fact iridochoroiditis had been the real cause and had also been the cause of the "neuraligy"—simply the pain—from which they had suffered. But not for this eye was treatment sought, but for the preservation of the other, which was now threatened with sympathetic ophthalmia.

In like manner others, having lost one or both eyes, not from inflammation, have applied for relief, who volunteer the information that "neuraligy" had been the cause, because pain had been the chief symptom in the early stages; when in fact glaucoma, not recognized, had insidiously invaded the organ and done its fatal work. In both classes of cases pain, a mere symptom, an incident, had been translated from its legimate relation and erroneously exalted to the rank of a substantial disease, and *to it* assigned the credit of having been the efficient cause.

I shall endeavor to demonstrate the gross

impropriety of this common use of the term, and that from this misuse results fatal to the eye very often accrue. I therefore, protest against the employment of the term as commonly used in practice and in our authorized text books, which regards neuralgia as a distinct entity; a substantive disease or affection. It is entirely inappropriate and meaningless; is a palpable misnomer. Nor is this a discovery of mine. It finds no confirmation in etymology or in philology—the only infallible and final court of appeal—nor anywhere else, except in tradition. Though extended and learned treatises have been written and published on neuralgia bearing the impress of great authority, which thus regard this affection, nevertheless the error remains the same; neither tomes nor honored names can justify such violence of language or of surgical art. The word can boast of a classical origin; but ignorance may have first introduced it into the medical vocabulary and custom ever since has sanctioned its use.

The word neuralgia is compounded of two Greek nouns: "Neuron"—a nerve; and "algos," pain. The signification of this compound word, therefore, is a nervous pain, or a painful nerve—an abnormal condition of a nerve manifested by pain. To whatever permutations, its elements are subjected or however their signification distorted, the original, radical meaning remains. Neuralgia is pain and pain is neuralgia. The absurdity of its common use when subjected to this test is therefore strikingly apparent. No one will assert that pain is a disease; but this can be done with as much propriety as to exalt neuralgia to that dignity. Neuralgia, even in its popular signification, has no symptom but pain; pain is neuralgia, and therefore neuralgia is neuralgia. The circle of logic is thus completed, and we return to the point from which we started. If no *detriment* resulted from this perverted use of the term. I should not in this presence decry against it, Being often employed as a term of convenience or as a cloak of ignorance, it becomes an effectual barrier to the investigation and discovery of the real essential cause; and because the correct diagnosis is not made, treatment of course is made at random or misdirected, and the patient in hopeless helplessness is left to suffer and sigh for the relief that comes not.

Health is that general condition of the human organism in which each and every organ normally performs its appropriate,assigned function No derangement of function of any organ occurs except as the result of a positive cause; and such derangement is announced by pain, as one of the symptoms. Pain, therefore, whenever or wherever present,is the language of lesion, the outcry of nature that some pathological lesion is present. Its intensity, however, is by no means always proportionate to gravity of the disease or the danger threatened—and it is precisely on account of this disproportion that its real, essential significance so often escapes the intelligent appreciation of the practitioner. Pain is a symptom occurring sooner or later in every disease in the entire catalogue—its cause, though occult or remote in time or place, nevertheless certainly exists; for no phenomena exists without an adequate cause; a law well recognized in physics, and equally true throughout the realm of all animate nature. To *the causes* it is *our* duty to *penetrate* and intelligently apply the appropriate remedy. If the *symptom* is mistaken for the disease,mitigation of pain becomes the objective point to which remedial agencies are directed, while the disease is entirely ignored. No tree is prostrated by lopping off the branches, well directed and persistent blows at the trunk are requisite.

In many diseases, of which pain is a symptom, the *instant* detection of the cause may not be indispensable for the preservation of life or even of an organ; but in the two affections under consideration, it is of the highest importance that the significance of the pain should be correctly interpreted, and its productive cause ascertained and then promptly to apply the efficient remedy. In these, pain, usually the first symptom, is not duly recognized nor its significance correctly interpreted. An examination, not being properly made, it is regarded as "neuralgia" dependent upon no definite cause and of no special import; it consequently receives no treatment except by opiates; by these pain is obtunded, but the disease in no degree affected; the disease extending and becoming ing more and more confirmed, finally reaches a stage, at which, even if curative agencies are employed they accomplish little or no good —the eye is lost and that through ignorance or neglect.

I will first present briefly a typical case illustrating those phenomena which precede that condition and stage to which the name sympathetic ophthalmia has been given; and in consequence of which the integrity of the other eye is seriously endangered. This affection has no antecedent pathological history; it usually commences with iritis and without apparent cause. Since the appearance of the eye in the early stages is not much changed, the disease is liable to escape detection. *Pain* is however present, but this is regarded as "neuralgia," which usually in-

creases as the disease progresses. Surgical aid may not be sought until the affection has passed to the severer degrees; then synechia posterior (adhesion of the posterior surface of the iris to the anterior capsule of the lens) has taken place, at first at a few points only, it then extends, till the entire pupillary margin is firmly united to the capsule—the communication with the anterior chamber being cut off the aqueous humor constantly elaborated by the ciliary processes, accumulates in the posterior chamber, and in consequence of this accumulation pressure is made upon all the surrounding parts and inflammatory products effused into the area of the pupil, obscure or prevent vision. On account of this and the increase of pain surgical aid is now sought, if not before; but in consequence of the appearance of the eye deviating but little from the normal, and the examination being carelessly made and superficial, the case is pronounced one of neuralgia and receives corresponding treatment. Meanwhile the iris,bulging forward by the aqueous accumulation behind, comes in contact with the cornea, and obliterates Fontana's space (iris angle). The inflammation extended backwards at last involves the choroid and the entire uveal tract, and finally iridochoroiditis is established, The trigeminus continues to speak with a louder voice, but 'tis "neuralgia" still. This again is squelched by opiates, till useful vision is annihilated beyond the power of remedy, and an eye is sacrificed from the want of proper appreciation of the symptoms presented. The storm now lulls and a calm may ensue—but even this happy event is not always the case ; for during this apparent respite the disease may be gathering destructive elements, preparatory to precipitation, like an avalanche, upon the other eye. By some insidious means of communication not well understood it reaches and instals itself in the other eye. It announces its enthronement therein, perhaps, by obscure symptoms; yet these, like the indistinct murmurings of the fearful cyclone,still distant,are unmistakable foreshadowings of awful tempest and wide devastation. But omnipresent pain is there one of the earliest symptoms. This, is even now dismissed with the indifferent assurance, that it is only "neuralgia." Vision, gradually obscured, continues to fail—all symptoms increase in intensity, and all those conditions which overwhelmed the other eye, in rapid succession are now reenacted in the second. Pain, by its ever increasing intensity, strives thus to obtain a hearing, and fully to reveal, even to ears obtuse, the destruction that is going on within it. But the deluded oracle still maintains "'tis only neuralgia;" and neuralgia is thus compelled unworthily to father all the symptoms, till blindness like night comes down and seals a doom irretrievable. Who is so void of understanding as not to perceive this absurd use of this fatal word or that no agony of logic can justify such a transmutation.

Irido-choroiditis, having established itself gave eloquent utterances of its presence, intelligible to him who is able to hear and rightly to interpret them.

Now this is no imaginary sketch portrayed for effect; its counterpart is found in the experience of every specialist and perchance in the unconfessed experience of some now present. I reflect upon none. The wise and properly informed needs no such narrative to excite him to the employment of efficient means to cure; let him who is less informed beware how he assumes responsibilities pregnant of such fearful results.

Before leaving this subject I will give a brief summary of treatment. Time will not allow me to expand as much as might be profitable.

The first great and indispensable factor in successful treatment is the *early recognition* of the disease with which we have to contend; to *this* the most potent handmaid is, as has been intimated, the *correct* interpretation of the significance of the pain experienced; a mistake here is fatal to all future endeavor and to designate it "neuralgia" is an unpardonable falacy.

Effort should be directed to the full and complete dilatation of the pupil by the persistent use of powerful mydriatics; *e. g.*, atrophia, duboisia, Hyosciamins,Hyoscine, daturine, etc. This may be wisely supplemented by external applications of the extracts from which these alkaloids are severally obtained. This treatment should be re-inforced by the use of mercurials and alteratives. If the disease in the eye first affected has reached the advanced stages, curative treatment will avail little or nothing; expectation or even reasonable hope of restoration must be abandoned; all effort must now be expended to avert a like calamity from the other, an event ever impending so long as the globe now lost is retained, for it incorporates within itself elements of the most pernicious character, which at an unexpected moment, and without obvious cause, may be hurled upon its fellow, and both by a like catastrophe be dragged down into a common maelstrom of destruction.

But happily one yet remains intact. With eternal vigilance provide for its present and

future security. This leads me to the third factor in treatment—enucleation of the globe that is lost. The highest degree of security resides only in its immediate removal while all is quiet and serene. It is *possible* the event portended may not occur; and yet it is possible it may occur to-morrow, and attain such a stage of disaster before enucleation is practicable, that even then, if performed, the highest benefit will not be secured, and permanent injury or absolute loss might be the result. The operation is not formidable; is not usually attended with danger;nor the occasion of subsequent suffering; recovery from the immediate effects is rapid, and the loss of the globe is easily supplied by the adaptation of an artificial eye. The propriety of enucleation when sympathetic ophthalmia is present is not a question of conjecture; it is a measure having the certitude of a mechanical axiom; it is the *only* alternative, the only mode of escape from impending blindness. Hesitation or delay on the part of patient or physician is the superlative of folly.

Cases of traumatism I have not embraced in the considerations presented; these, the result of penetrating wounds, severe contusion of the ciliary body, etc., will, in a brief period pass through those same stages, which, from mere inflammation has required months to traverse. In such cases the vigilance of the physician must be as much more active and his interposition as much more heroic as the violence of the symptoms are more aggravated.

In the duty prescribed for myself,it remains to emphasize the vital importance of the early correct interpretation of the significance of the symptoms which portend or attend acute glaucoma. Pain is generally the earliest. This symptom usually appears suddenly, like lightning in a clear sky, unheralded without preceding inflammation or other apparent cause. It invades the eyes of persons just beyond the meridian of life. The patient calls it "neuralgia," and with this conviction, he seeks relief from his medical adviser.

He without careful investigation often accepts the diagnosis made, and not correctly discerning the cause, prescribes the customary opiates. Presbyopia and obscurity of vision supervene in quick succession; but these are referred to "neuralgia" as the cause. The pain increases, and with it ensues the rapid extinction of vision. The course from perfect vision to complete blindness is often crowded into the short space of a few days. Rarely are both eyes attacked simultaneously, the affection of one preceding that of the other by a few months, but the same symptoms characterize both, and all are usually referred to that imperial cause "neuralgia."

A few observations respecting glaucoma. What is the essential nature of the factors to which,united,this designation has been given?

It is one of the fundamental laws of physics that action and reaction are equal. A like relation prevails throughout the human economy. Secretion and excretion, waste and repair; activity and repose are some of the many instances of opposite and alternate conditions in which in health a just equilibrium is constantly maintained. Of these secretion and excretion in respect to closed cavities,and especially the eye, are highly conspicuous examples. The globe is a complete sphere, consisting of a frame work tough and unyielding, and inclosing the various systems, muscular, vascular and nervous. Each of these in health performs its appropriate function with simultaneousness and in entire harmony with each other. The aqueous chambers together as one, may be considered a great lymph reservoir of the eye, the fluid of which is elaborated by the ciliary processes, these constituting the chief organ of secretion. Excretion is mainly accomplished by the canal of Schlemm, the great lymph channel of the eye, through the medium of Fontana's space. These processes, secretion and excretion of aqueous humor, are equal and constant. By virtue of these endowments, intra-ocular tension is duly maintained, nutrition continued, and the mutual relation of the iris, lens, vitreous humor, etc., is normally preserved. This exact equilibrium is essential to the integrity of vision, and indeed, of the eye. For, if from any cause excretion exceeds secretion (i. e.), if escape exceeds supply, not only is the normal relation of the several dioptric media disturbed, and vision consequently impaired, but if this condition be long continued, atrophy of the globe will inevitably result. If, on the other hand, secretion exceeds excretion (i. e.), supply exceeds escape, the aqueous humor of necessity accumulates and intra-ocular tension is inevitably increased. This process acting mechanically and with hydraulic effect and power, occasions pressure upon the several component parts of the organ, and to a corresponding degree impairing or destroying their function.

The trigeminus, ever vigilant and patient, from the earliest invasion of the disease, has not kept silent, but has faithfully and unceasingly proclaimed the presence of the merciless intruder by pain, the only language of which it is capable. But to the medical adviser this voice is too often, alas! an uncertain sound, having no special significance and

deemed and termed only "neuralgia." To this, as the specific, efficient cause, are all the concomitant symptoms referred, viz: the rapidly diminishing vision, the dilated pupil, the hard globe, the blanched sclera, and even the pain itself.

Meanwhile secretion continues; Fontana's space being obliterated, excretion cannot take place; aqueous humor, therefore, accumulates, intra-ocular tension is increased. Some part must give way; the weakest part must yield; this part is at the optic nerve entrance; the optic disc protrudes; staphyloma posticum is produced; the conductivity of the optic nerve fibres by this pathological change is cut off; vision is consequently extinguished and "neuralgia" is erroneously credited with being the cause; when in fact, as has been repeatedly stated, it is but a symptom, an incident of the disease, and immaterial to its nature and progress, except so far as by the beneficient provision of nature it is made the infallible index of this mortal affection.

Now, what is to be done?

First, listen attentively, intelligently and ever to the voice of pain; learn its language and correctly interpret its significance; for it is full of ominous portents. Never listen to that siren that would seduce you into that conviction that it is only "neuralgia;" repose no confidence in the medical efficacy of opiates for they lure but to deceive. Remember that pain, accompanied by rapidly increasing presbyopia, means glaucoma—nothing more and nothing less–nor shrink timidly in its presence, but advance boldly to meet it at its coming. Do to day the duty imperative to be done; tomorrow may be too late; a day, or even a few hours, may precipitate to a fatal termination.

The *relief* of the intra-ocular tension, abnormally increased, is the great end and object of surgical effort. If the disease is presented in a mild or chronic form, the use of eserine, (the alkaloid of the calabar bean) pilocarpine, (derived from Jaborandi) or some other powerful myotic may securely be employed, with the intent and expectation that by the energetic contraction of the pupil, the iris angle may be restored; Fontana's space re-opened, and the aqueous humor again allowed in full current to reach Schlemm's canal. In the hands some specialists, this agent has been found an efficient ally; it has disappointed others. But in the severer cases, this and all other similar remedial agents are powerless, and their employment is worse than useless, for valuable and irrevocable time is lost: yet to the might of surgery we can turn with gratifying confidence to accomplish the relief indicated. Three modes of operation have been devised: First, that by Mr. Hancock, of London, section of the ciliary muscle through the iris angle, thus instituting a direct communication between the anterior chamber and Schlemm's canal; second, that by Von Graefe, section of the sclera through the iris angle and iridectomy, third that by De Wecker, simple sclerotomy, so as to open up Fontana's space as complete as possible. The practical object of all of them is probably the same (i.e.) to obtain a ready and adequate transmission of the aqueous fluid through its normal channels. The adoption of one of these modes of procedure, according to the apparent exigencies of each individual case, will enable him who knows how to employ them often to arrest the progress of this fatal disease, which, till within a few years, was considered beyond the power of medical or surgical art.

I might cite many cases in illustration of the statements made, but I must not longer trespass upon your patience.

My chief object has been, by the presentation of typical cases, to emphasize the vital importance of the early and correct interpretation of the significance of *pain* in the two affections which we have passed in hasty review and to emancipate the term "neuralgia" from its traditional use, as a distinct and specific disease. Never, then, I repeat in respect to the eye at least, regard pain as neuralgia. The question involved is not the mere continuance or the cessation of pain; the tremendous issues of vision preserved, or vision lost are in the scale. Opiates may soothe but cannot cure: they lull into a delusive and fatal security, and consequent inactivity, while the demon of destruction without restraint runs riot within the very citadel. In disease progress is a law inflexible as that of gravity in nature. There is a Rubicon *within* which, by the intelligent employment of agencies at command, recovery is possible; failure to adopt these through incapacity or neglect allows this limit to be passed, and once passed there is no return; the die is cast, doom is pronounced and blindness is irrevocable. Therefore to all I say, be vigilant—be wise—be bold.

Dr. C. C. Fite has resigned the secretaryship of the Tenn. State Board of Health, and Dr. J. Berrien Lindsley has been elected his successor.

Dr. Fite was an excellent man in the place, and was rapidly making himself known as an able and hard working sanitarian. Dr. Lindsley is widely known as the treasurer of the American Public Health Association, and as a medical philanthropist. He has done more than any other man in the South for medical organization. The Board could not have made a better choice.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

REPORTED FOR THE REVIEW.

Stated Meeting, June 14th, 1884.

EXCISION OF THE RECTUM FOR CANCER.

DR. COLES.—Mr. President, I have a specimen here that is interesting and would have been more interesting some time ago, but I thoughtlessly dropped it into alcohol and it has shrunken up considerably and doesn't look well. It is a case of excision of the rectum for cancer. Some time since a lady came to me from Kentucky and stated that she had been troubled with some disease of the rectum for the last eight or nine months; that she supposed at first it was a case of hemorrhoids and she consulted her family physician and he suggested that perhaps it was a case of fissure. He made an examination in December last and discovered that the disease was epithelioma. At the suggestion of her friends he did not inform the patient of the true condition. Thinking that she was not progressing as she ought, not knowing she had a malignant disease, she became dissatisfied and came to this city and consulted me. I examined her under chloroform, very thoroughly, and had no difficulty in recognizing the true state of the case. After making this examination, I wrote her physician in Kentucky, and he replied in a very satisfactory letter, saying he had already recognized the disease but thought it best not to acquaint the lady with the facts, as it was his opinion nothing could be done except merely in palliation. I deemed it my duty to inform her of the nature of the trouble, and told her that it was feasible to remove it. The disease reached about two and a half inches into the rectum, and was situated mostly anterior and on the left side, extending around to the posterior portion; most of it however was on the anterior and left side. The vagina did not seem to be involved; thus by putting one finger into the rectum and the other into the vagina the mucous membrane of the vagina would slide very easily over it; there was a fissure on the left side which extended into the epithelial growth. About two weeks since I operated and removed two and three-fourths inches of the rectum. The patient made a very satisfactory recovery, and to-day was able to get out of bed. I encountered a good deal of hemorrhage. This operation has been performed a number of times in this country within the last ten years. Up to that time however it had been performed very seldom. It was performed many years ago in Europe by Lisfrance, but the results of the operation were not satisfactory, and the operation was described as dangerous, and attended with too much hemorrhage to allow of safe operation, and hence it fell into disuse, until of late years, when Billroth and other continental surgeons operated with marked success. Quite a number of operations have been performed in this country, but the operation is given very brief notices in our works on surgery. Dr. Agnew, of Philadelphia, in his surgery says he considers it a clearly feasible operation and he has operated once himself; he would always advise the operation where there coexists four conditions, all of which he considers favorable to the operation; one is where the disease is epitheliomatous in character; second where the disease is confined to the gut itself; third where the disease is within reach; and fourth, when the general condition of the patient is favorable to the operation. All of those conditions I thought existed in my patient, therefore, I didn't hesitate to advise the operation, to which she consented very readily when she found out the nature of the trouble. The result in this case has been satisfactory so far. Of course there is a possibility that the disease may return; however, the statistics of late years have been very encouraging, indeed. Some of the patients operated on for epitheliomatous cancer have had their lives lengthened four, five, six and eight years, some apparently being cured; of the other cases some have died from the operation, and in others the disease has returned. The number of cases on record in which the disease has returned are so few as to encourage us very greatly. The operation is one which at the present day every patient ought to have the benefit of, especially epithelioma, just as in cancer situated elsewhere. In this case I commenced the operation immediately behind the vagina and made my incision down to the verge of the anus and cut directly backwards toward the os coccygis. The most difficult part of the operation was the separation of the rectum from the vaginal wall, which is so unstable that if you have to make a close dissection, as I had to do in this case, although it didn't involve vaginal mucosa, is very difficult. I dissected up about three and a half inches and then amputated the bowel above the disease, having first dissected back the external sphincter, thus preserving it quite perfectly. The stump was then brought down and stitched to the external skin, the sutures being secured by shot. The sutures were removed two days ago, and my patient seems to be doing very well. I put in two drainage tubes, both coming out just back

of the anus; I left the dependent portion of the incision open for drainage and the drainage-tubes were passed upon each side, both coming out side by side, immediately in front of the coccyx. There was considerable drainage of blood serum after the operation; for the first 24 hours there was a constant trickling from the drainage tubes. At the end of the 24 hours one tube came away and the other was taken away. The external sphincter was saved in this case; it was not involved in the disease, and it is very important to save it if you can, because it gives the patient control over the bowels. It is astonishing how rapidly this patient is gaining control over her bowels; to-day she notified her nurse that she wanted an action and she rolled out of bed on the commode and had a good action. I tried to keep her bowels constipated after the operation, but on the second day she had a good free action in spite of the pretty free administration of opiates. After that I determined to let them alone and they have been moving nearly every day since.

Dr. Prewitt.—I agree with Dr. Coles that those cases ought to be operated upon and the earlier the better, but sometimes it seems to be an unfortunate circumstance that they are not recognized until they have progressed to such an extent as to involve a considerable portion of the bowel and pass up beyond the point of safety. The patients oftentimes complain of a good deal of trouble about the bowels and doctors prescribe for them, never taking the trouble to examine the rectum. I have repeatedly had patients come to me with epithelioma of the rectum of enormous extent, but which has never been recognized; the patients have not been examined. Somehow the doctors seemed to have a repugnance of that sort of an examination, even in cases where the patients complain of trouble about the bowels. If this trouble is recognized earlier and operated upon a great many I think might have their lives prolonged many years in comfort. It is a fact that cancer occurring in this locality is of a very low malignancy; it is not apt to return if extirpated. Cases have been reported where after extirpation they have gone 12 and 14 years without any indication of returning; they are the most favorable cases for operation, unless it be epithelioma of the lip, which is oftentimes removed without ever returning. I met with a case recently in an old woman of 60 years of age who never had an examination of the rectum made and it was after great trouble that she was induced to submit to an examination. Her bowels had become obstructed to a certain extent by the growth; she often had colicky pains, indicating chronic obstruction, and a very intelligible physician, a member of this Society, who saw her, suspected something wrong, and finally induced her to submit to an examination, and this condition of things was discovered. She had a good deal of bleeding from this growth, there was loss of blood almost nightly. He referred the case to me, and asked what I thought of excision of the rectum. I told him I thought it was the proper thing to do if it was a good case; but on reflection I found that the woman was old and feeble, and it didn't seem to me she would be likely to survive such an operation. In that case I proposed colotomy as an alternative, because of the comfort it would give her while she did live. He concurred with me and I performed colotomy in the left lumbar region; the parts united, and an artificial anus was formed; more or less fecal matter passed readily enough, but she seemed occasionally to suffer from the growth, and lived not a great while, died simply from exhaustion. In those cases where excision of rectum is not advisable, colotomy is the proper operation; it certainly adds to the comfort of the patient and prolongs life; it removes the irritation on passage of fecal matter, and renders the patient much more comfortable. The existence of an artificial anus in the left lumbar region is not such a terrible calamity as many have thought; it is much more readily controlled; pads laid upon the parts and removed whenever there is an inclination to do so by using a special pad. There is no reason why people should have such a terrible repugnance to the existence of an artificial anus; certainly it is preferable to the suffering and distress connected with the growth of cancer of the rectum, and the distress that is occasioned by the passage of fecal matter, etc. Of course it is more readily operated upon in females than in males. In this case it seems it hadn't entirely invaded the vaginal wall, but if it had the doctor would have had no difficulty or hesitation, I suppose, in removing the vaginal wall in order to get rid of it.

Dr. Dean.—In spite of the great fear of the laity of cancer in any other part of the body it seems strange how little aware these people are of the frequency of cancer of the rectum; in fact they very seldom consult a physician at all with reference to that trouble until too late, or the cases are probably treated simply as dysentery or something of that kind. The profession is very negligent in examining these people, and this leads them to consult those who make the treatment of diseases of the rectum a specialty, but quacks as often as honorable specialists. I have seen

several cases within the past few years that have been treated just in that way, treated as dysentery and never examined at all unless the patient went to some cancer doctor at a distance. On the other hand, some of these doctors who make the treatment of these ailments a specialty, that is, dishonorable specialists, well knowing the probabilities are not very great that the patient will go to anybody else, and especially after the fees they exact, make all sorts of statements with regard to the case. I had an illustrative case some time since in a man, who seemed hypochondriac as regards his own physical condition, who has often told me that he was formerly a walking-drugstore. He finally wrote his wife, who was in this city, while he was in Chicago, that he consulted a physician and found out at last that his ailment was fissure of the anus. The doctor wanted to treat him at once, but he wouldn't permit him to do so until he had seen his family physician, who happened in this case to be myself. The doctor taunted him by advising him to go to Van Buren, of New York, if he was not satisfied with his diagnosis. When I examined the man I found that there was no sign of fissure; for fear that I might have been mistaken in the first examination I made a second examination and was perfectly satisfied that there was no fissure and the patient was perfectly satisfied also, and has so remained for more than a year, yet this physician told him that there was a fissure and wanted to operate upon him, that he would have nothing further to do with him without giving him chloroform. Of course he did not want the patient to know just how much he did or how much he did not do, so as to regulate his fee according to the operation claimed. Almost all these cases of cancer of the rectum come to us too late to be operated upon with success. I do not believe that physicians should in these days of refinement of physical diagnosis treat the patient without an examination; we cannot possibly know the extent of the trouble or its nature unless we do make an examination. As Dr. Prewitt stated, these are, when taken early, perhaps among the most favorable cancers to remove. They are generally epitheliomatous in character, in the beginning at least, and in these cases almost without exception we may expect favorable results if we see the patient sufficiently early.

Dr. Prewitt.—I met a few months ago a case of fissure of the anus that was certainly very deceptive. It occurred in a woman 60 years of age, who had suffered a great deal, and had great difficulty in getting the bowels moved. On examination I found a deep fissure with an amount of induration around it that led me to suspect it might be epitheliomatous; it was certainly deceptive and very suggestive of malignancy. It was so clearly a fissure of the bowel that I treated it as fissure, divided it freely down to the base, and applied the usual treatment; it got well and the induration connected with it disappeared. I did not cut out any of it and examine it as I might have done, to determine the diagnosis; it healed kindly. I speak of this because it was a case that might readily have been mistaken for epithelioma; there was a larger amount of induration than in any case of fissure that I have seen in my life; and this reminds me that I met only a short while back with a fissure of the bowel in a child not more than three months old, which the mother told me had been present from birth; it was a very decided fissure of the bowel.

Dr. Watkins.—What was the treatment of the fissure?

Dr. Prewitt.—I simply painted it with a little oil and iodoform and made it heal from the bottom.

Dr. Meisenbach.—I have a specimen that I would like to exhibit. A week ago it was a very pretty specimen of hydatiform mole; immersion in alcohol has considerably destroyed the characteristics of the growth. A week ago to-night I was called by a midwife; she came in haste, saying she feared she had a case of placenta prævia. When I arrived at the house I found the patient to be a young woman in the second pregnancy. Seven months before a miscarriage had occurred. I did not learn, but supposed it was a fetus. The vagina was filled with clotted blood. She supposed herself to be six months pregnant, but there was something peculiarly striking about the formation of the abdomen, in fact, the womb was much smaller than at the sixth month of pregnancy. This mass was expelled, and I found it to be a hydatiform mole. There was not much hemorrhage after my arrival, there had been considerable before. There is one thing I would like to call attention to in these cases, that is, the configuration of the womb as felt through the abdominal wall; the womb that is pregnant at the sixth month is about on a level with the umbilicus; now, in this case it was not. The womb that is pregnant and containing child shows an irregular configuration corresponding to the bony points of the fetus; in this case it did not; there was symmetrical enlargement and on abdominal palpation the sensation given was that of dough. In these cases there is at times considerable hemorrhage upon the expulsion of the growth, and to inex-

perienced persons no doubt the idea would be that they were dealing with placenta prævia, but a careful examination of the womb externally will soon convince them that it is not that trouble. There is a difference of opinion among authors in regard to the origin of this degeneration. Some think it is caused by the death of the fetus, and afterward this pathological change in the chorion takes place. Others think that the starting point is in the chorion, gradually producing absorption of the fetus; these growths seldom go beyond the fifth or sixth month, they are most usually expelled at that time.

Dr. Coles.—Was there any history of syphilis in this case?

Dr. Meisenbach.—I did not learn of any, the case was given very imperfectly by the woman, she being Bohemian.

Dr. Coles.—As indicated by the question I asked, I think it very likely that in the history of this case there is possibly some syphilitic taint. It seems that the fact that she miscarried previously, and this trouble ended in a subsequent pregnancy would indicate that there might be some such trouble. I would suspect that possibly she has suffered from constitutional syphilis. We all know that it is one of the most frequent causes of miscarriages, and not only is it the cause of miscarriage, but frequently is the cause of degeneration of the ovum, and if the doctor has any subsequent control over the patient I would suggest that he put her on a course of constitutional treatment.

Dr. Dickinson read a paper on the

REAL SIGNIFICANCE OF PAIN AS ILLUSTRATED IN THE TWO AFFECTIONS, SYMPATHETIC OPHTHALMIA AND GLAUCOMA.

Dr. Post.—One who is not familiar with the subject of enucleation might imagine that it was an operation devoid of danger; I have seen death follow in a short time after enucleation of the globe, which was done simply for cosmetic effect. I saw the patient, a woman who had a slight defect of one eye, and who thought an artificial eye would have a better appearance than the natural globe. She requested that it should be removed and it was removed. The case followed the ordinary course for a few hours, but within twenty-four hours there was a supervention of brain symptoms, and within a week I saw the brain cut open; the symptoms all pointed to brain complication following the operation, the gentleman who perfomed the operation and who examined the brain found that it was lacking in positive evidences of the cause of death. This case has changed my feelings with regard to the operation, and I never undertake it now without some misgiving and without feeling that I must take this danger into consideration in recommending the patients to have the eye removed.

Dr. Alt.—Although I agree with Dr. Dickinson that pain is one of the earliest and most important symptoms of glaucoma, it is not the same with sympathetic ophthalmia. The beginning symptom in sympathetic ophthalmia is usually what is called sympathetic irritation consisting of photophobia and general irritation of the eye, and evidences of irritation, but not pain. I think the doctor meant only to say that pain may be one of the symptoms which point to disease in an eye which after some time may become the cause of sympathetic ophthalmia in the opposite eye. He made the remark with regard to the transmission of the disease from one eye to the other that in some mysterious way this transmission takes place. There are quite a number of theories in regard to the way in which the transmission takes place from one eye to the other, and, without going into all the details of all of them, I wish to state that within the last few years a number of experiments have been made which seem to prove absolutely that, in many cases, at least, the disease travels directly along the optic nerve from one eye to the other. Dr. Deutschmann has injected spores of aspergilus into one eye of rabbits which produced sympathetic neuroretinitis in the other eye. I myself have been engaged in experimenting largely on the subject, and have of late succeeded in producing in a rabbit three days after I had injected one eye, an iritis of a very marked character in the fellow eye. The agent which I used was jequirity; I injected a solution into the vitreous of the rabbit's eye, and observing it closely, I noticed that in the morning of the third day he had an iritis in the fellow eye, which gradually grew worse until he died. I have since examined the eyes, and although I am not yet satisfied that there was actually an inflammation of the optic nerve from one eye to the other through the chiasm, there is one feature which so thoroughly proves that in such cases the disease travels along the natural channel, namely, in the eye which I first injected with jequirity, it produced a characteristic croupous exudation upon the iris in the in the anterior chamber, and the vitreous body, and, strange enough, in the second affected eye appeared this same strange exudation, which was very different from the common exudation we find in plastic iritis. Although this question is not yet entirely settled, I am

satisfied it will be settled in this way by experiments.

Dr. Dudley.—To what did you attribute the death of the rabbit, and how long did it live after the injection?

Dr. Alt.—It died three days after the injection. Jequirity is a very severe poison; it will kill a rabbit, sometimes, in twenty-four hours. I have tried the same thing with a number of rabbits and not succeeded.

Dr. Dickinson.—I thank the doctor for raising the point that he has. I said that pain is only one symptom, for I did not attempt to enumerate all the symptoms; I merely stated that which is most common, and of all of them the one which declares itself most unmistakably is that of pain. In regard to enucleation of the organ, perhaps I should have qualified my statement a little; I did not wish to be understood as stating that the operation is absolutely free from danger. I am glad to have the report made of the case in which death has occurred. It is certainly the first case that I have ever heard of as occurring in this city, and it will make me more cautious in regard to my predication of results.

Dr. Alt.—There are quite a number of cases on record, I know four, without the case which Dr. Post reports, in which death followed the enucleation of an eyeball. In the cases I know of, it was always an eye which had been suffering from purulent panophthalmitis, and which of course involved the orbital tissues surrounding the eyeball, and the cause of death always was suppurative meningitis. I do not know whether it is right to call the enucleation the cause of death in such a case, and it is surely not right on account of such unfortunate cases to be too cautious in enucleating the eye when it ought to be enucleated.

Dr. Post.—In this case that I referred to there was no inflammation at the time of operation; the globe had shrunken and the lady thought it best to have an artificial eye instead of the globe, and for that purpose wanted it removed; it was removed and these brain symptoms followed, and the understanding is that the patient died from meningitis.

Dr. Williams.—Some years ago while I was living in Cincinnati I had occasion to remove the eye from an old gentleman who had a malignant growth in the bottom of the eye, a cancerous trouble. The eye was painful, and it was necessary to remove it to relieve the patient from his suffering. The malignant growth didn't involve any structure except the bottom of the eye; it was confined exclusively to the eye-ball. On the second day after the operation brain symptoms set in, and in the course of a few days the old gentleman died of inflammation of the brain. This is the only fatal case from enucleation that I have met with, or even heard of heretofore. In that case I thought nothing of the matter especially, simply because I looked upon it as a malignant disease, and I supposed it was easy enough for the malignant trouble to be transported at once to some other part, and cause the patient's death. It seems to me the doctor in his paper advocated the propriety of throwing out entirely the word neuralgia from our nomenclature. There is such a thing as neuralgia, a painful nerve which is by no means the result of inflammation; neuralgia never produces inflammation, yet neuralgia causes intense suffering not only of the eye-ball but of the surrounding structure, the supra-orbital, infra-orbital and dental nerves; the whole face in fact is often involved in the affection. I take it that neuralgia is a very proper word and should be retained; of course a man should not call pain neuralgia when it is not neuralgia; a painful nerve, that is not inflamed, is genuine neuralgia. I see cases of genuine neuralgia and relieve them almost daily by the use of quinine stimulants and irritants. If we make a correct diagnosis then our treatment will be correct. Of course if you mistake inflammation of the eye-balls for neuralgia, then the whole treatment will be bad clear through. You see everything depends upon a correct diagnosis. Neuralgia proper and inflammation in and about the eyes are different things entirely. I am not in favor of dropping out the word neuralgia from our nomenclature by any means. It contains too much truth to let it go. So far as acute glaucoma is concerned it is one of the most intensely painful things we ever meet with and must be recognized immediately in order to relieve it promptly and effectually and at the same time save the vision. We have a condition, which we call chronic glaucoma, which requires more skill to diagnose it properly and the same prompt relief as the acute form. Chronic glaucoma very often progresses for weeks and even months without causing even the slightest pain. Chronic glaucoma may cause very decided dimness of vision and almost blindness without pain. The celebrated Dr. Rodgers, of Louisville, Kentucky, years ago had chronic glaucoma in both eyes at the same time, his vision failed him and he was not able to determine what was the matter with his eyes; he couldn't see and ran all over the country trying to find out what was the trouble, and finally chronic glaucoma was diagnosed and this diagnosis was made in Cincinnati after a most thorough examination. The only means

of making the diagnosis was pulsations of the optic nerve, and then on closer inspection it was found that his eyes were periodically harder than they should be. These were the only evidences upon which the diagnosis was made. The usual treatment was resorted to and the old gentleman's vision was restored completely. Glaucoma may, therefore, develop without pain in the chronic form; in the acute form it is most intensely painful. These conditions should not be called neuralgia—it is not neural—pure neuralgia is a non-inflammatory *painful* condition of the nerves. Some time ago I was called to see an old lady in French Town who had a most intense neuralgia of the entire face, involving the teeth and eyes; she couldn't bear the slightest cold to touch her. It was in the winter time, an intensely cold winter, and the slightest cold air coming to her skin gave rise to the most intense suffering. She was going about the house with her head wrapped up in feather pillows. On examination I found she had some tender teeth, not aching, but they were tender and painful on pressure. I suggested the propriety of getting rid of these tender teeth; her neuralgia disappeared without any medicine whatever as soon as the teeth were extracted. Such cases are not infrequent, and I am decidedly opposed to the idea of excluding the word neuralgia from our nomenclature because there is a good idea in it as well as truth.. It requires very simple treatment to relieve suffering of that kind. Sympathetic ophthalmia is not painful in the beginning; it starts insiduously and may become painful after a considerable time, but usually in the beginning it is not at all painful; that has been my experience.

If the Doctor will excuse a friendly criticism I will say that he has gone to extremes in intimating that pain in and about the eyes usually points to glaucoma and sympathetic ophthalmia. Ulceration of cornea and iritis as well as neuralgia are much more frequent, and equally as painful.

ILLINOIS STATE BOARD OF HEALTH.

[CONCLUDED.]

THE FIFTH ANNUAL REPORT.

Continued delays in the public printing office have still further postponed the publication of the Fifth Annual Report of the Board; but a full force of compositors is now at work upon it, and assurance is given of its speedy completion.

The material for the Sixth Annual Report is in an advanced state of preparation, and together with the Revised Official Register of Physicians and Midwives, which is also nearly ready, will be put into the printer's hands as soon as the Fifth Annual is out of the way, all of which is respectfully submitted. JOHN H. RAUCH, Secretary.

At the conclusion of the reading of the Secretary's report, which was accepted, and ordered placed on file, the following resolutions were adopted, looking to putting into effect the various suggestions embodied in the report.

Resolved: That the importance of the study of practical anatomy, as a foundation for surgical knowledge and skill demands, that the supply of material for this study be more definitely regulated, and its necessity recognized by law, and that the Illinois State Board of Health respectfully urges the attention of law makers to these considerations.

Resolved: That the increasing prevalence of small-pox in London and elsewhere, indicating a probable renewal of this epidemic tendency, and its frequent introduction into Illinois from neighboring states, within the past few months, make it desirable that vaccinal protection be secured as fully as possible in every portion of the State; and to this end, the Secretary is hereby authorized to call the attention of sanitary authorities and others to the subject; and to take the necesary steps to push the further enforcement of the school-vaccination order of the Board, so that all new scholars, and those who have not fully complied with its provisions may be properly protected against small-pox before the advent of cold weather.

Resolved: That while epidemic cholera may be excluded from this country by thoroughly enforced quarantine regulations, yet the best attainable sanitary condition of every locality in the State should be secured, so that in the event of Asiatic cholera effecting an entrance, notwithstanding quarantine, the disease may be met and fought under the most favorable circumstances. The Secretary is, therefore, hereby authorized to take such action, as in his judgment, will most promptly obtain a thorough sanitary organization of the State, and the adoption and enforcement of the measures necessary to improve its general sanitary condition.

On motion of Dr. Haskell, the secretary was given discretionary authority to act for the Board in any case of emergency which may arise in the interims between the regular meetings.

During the executive sessions the cases of a number of colleges, with reference to the requirements of the Board and their standing under the Medical Practice Act; the important features of the office correspondence during the quarter; and the cases of a number of practitioners were considered, and the necessary action taken in a large number of these.

The following certificates were also ordered revoked:

Certificate No. 913 issued to Peleg W. Blakeley.
Certificate No. 1103 issued to Fritz Tripple.
Certificate No. 3190 issued to S. Meyer.
Certificate No. 4027 issued to Wm. Becker.

After the transaction of sundry routine business, auditing of accounts, etc., which occupied the hours of the morning session, the Board of at 11:30 A. M., adjourned.

PRECAUTIONS AGAINST CHOLERA.

Circulars have been sent to the sanitary authorities of 644 cities and towns in Illinois, drawing attention to the possibility of cholera infection. Full directions are given concerning sanitary precautions.

It is urged that especial attention should be paid to:

FIRST.—The condition of the water-supply.

SECOND:—The disposition of night-soil, garbage and sewage.

THIRD:—The cleansing of streets, alleys, and other public places.

FOURTH:—The supervision of food-supplies, and of market-places, slaughter-houses and similar establishments.

FIFTH:—The general sanitation of every house and its surroundings.

1. Water is one of the commonest mediums through which cholera spreads; but, aside from this, typhoid and malarial fevers, diarrhea, dysentery and other diseases, are caused by impure and polluted water. Hence the necessity of protecting the supply from contamination by surface washing and drainage of filthy soil or premises or of wastes from manufacturing establishments, or by seepage through the ground from privy-vaults, cess-pools, etc.

2. Night-soil, garbage, sewage, and all other forms of decomposing organic matter, are highly prejudicial to health, and their foul odors are indications of danger. The various methods for their proper disposal, so as to render them harmless, are well understood, and should be enforced according to the varying conditions of each locality.

3. Clean streets and alleys, and gutters properly drained and kept free from unsightly and filthy accumulations, are of even greater importance during the heat of summer, than at other times. The healthy condition of the atmosphere of a locality largely depends upon the condition of its thoroughfares.

4. The rapid decomposition of most articles of food during hot weather—the tainting, souring, wilting or rotting processes—and the derangements of the stomach and bowels caused by the use of such food, indicate the necessity for special supervision at this time, of all food-supplies, and of the places where they are prepared, stored, or disposed of.

5. The foundation of healthy living is, obviously, the individual home and its surroundings. Houses, cellars, yards and outbuildings should be carefully inspected, and all accumulations of garbage, refuse and filth of every description should be removed, or, where this is not practicable, they should be rendered harmless by appropriate treatment. No house or premises can be healthy without proper drainage. If this is not secured by sewers or underground drains, then recourse should be had to surface drains, so as to prevent the possibility of stagnant water under the dwelling or in its vicinity. Cellars should be dry, clean and well-ventilated, so that they may not generate foul air to be drawn up through the house.

CORRESPONDENCE.

LONDON LETTER.

To the Editor of the Review:—During the last few days the prospects of the Medical Bill being passed this session have immensely improved, for on Thursday, the 26th of June it was read a second time in the House of Commons, without serious opposition. It is pretty certain, however, that the third reading will not meet with the same fate. In this instance a very usual custom is being followed. When a bill is introduced of which the general principle is approved, but some of the details of which are considered obnoxious, it is quite a common practice to allow it to pass the second reading in peace and at the third reading to propose amendments, and if these are not carried a determined attempt is then made to reject the bill. That is what will no doubt be done in the present case, the friends of the two Apothecaries Halls will endeavor to get themselves reinstated during the third reading, and the corporations will likewise do their best to get more power than the new bill, as it stands at present, promises them for the future, and if these efforts fail, we may be quite sure that the third reading will not be allowed to pass unchallenged.

Dr. Lyons expressed very well the position of the corporations in regard to this bill, and pointed out the possibility, if not probability, that the corporations would under its provisions die of sheer inanition, before the lapse of many years. There is no doubt that this is a probably correct forecast of what may be expected to happen. At present the corporations are wealthy and very powerful, as the vast majority of men who enter the profession come to them for a diploma; the number of men who take a university degree is practically insignificant, and they almost all of them have to go to one of the corporations for a diploma. But when the new scheme comes in, and a man has to go to a central authority for his license to practise, he will soon begin to ask of what use a diploma will be in addition. A degree from one of the universities will not lose any of of its reputation, but the mere diploma will have nothing to recommend it. Fees for examinations would cease coming in and without them the corporation could not long exist.

I must say, speaking for myself as only an individual who has probably had as little or as much to do with the corporate bodies as the average number of men have, I fail to see any reason why the existence of these bodies should be maintained. So far as I have been able to judge they never do anything for their licentiates except take their money, and never betray the smallest interest in their subsequent career, nor will they lift a finger to help one of them to fight against quackery or illegal practice. Whereas if there was a single authority, those who practised under its auspices would have much better prospect of having their rights protected.

A row at the College of Physicians is so rare an event that certain occurrences which took place there a few weeks ago are worth recording. The College of Physicians is composed, as most of your readers are probably aware, of Fellows, Members, and Licentiates. The latter are, by far, the most numerous class but they have nothing to do with the College, and can only reach the grade of members by undergoing a further examination. The Fellows are chosen from the members by election only, the members obtaining their position by examination. No member of less than four years standing is eligible as a Fellow. The Fellowship is supposed to carry with it certain regulations both written and unwritten as to the kind of practice that its holders may indulge in. A Fellow not being supposed to be engaged in general practice. How far that is carried out

I may on some future occasion endeavor to indicate. The election to the Fellowship takes place in May, and is conducted mainly by the Council. This august body are required to meet, to receive the names of those who have been proposed for the honor, to consider their claims as well as the claims of all who are eligible, and then draw up a list of names to be proposed at a general meeting of the College for election.

This year matters went badly from the first, at the Council meeting in May there was not a quorum present,and so they could not make out their list for the general meeting a few days later. A special by-law had to be passed therefore to enable the nominations to be made in June. When the time came, a list of sixteen (a most unusual large number) was produced, which was chiefly characterised by the absence of the names of the most prominent of the younger men and the presence of a lot of names many of them quite unknown men, others merely successful general practitioners. This list was circulated amongst the Fellows a week before the election, time which was well spent by those who were disgusted with the list in organizing an opposition to it. When the day arrived there was a very large attendance of Fellows, and Dr. Andrew in an excellent and temperate speech characterized the list as a disgraceful one, and moved that it be referred back to the Council for reconsideration, he was seconded by Dr. Sieveking, and it was in vain that Sir William Jenner fumed and Sir Andrew Clark blustered, for Dr. Andrew's proposal was carried by an overwhelming majority, something like one hundred to twelve it is said. If all the news that I hear be true, it was more for sins of omission than commission that the list was rejected, one of the ablest of the young men, and one who certainly ought ere this to have been made a Fellow, having been kept out on the ground is said of his connection with the medical school for women. Such a piece of bigotry is not worthy of the present enlightened age, and will probably defeat its own object in the long run.

These events happened about three weeks ago, but I learnt the other daythat the Council have not held their meeting to revise the list, revise it they must, for they have to cut it down to twelve, and it would appear that they are still undecided as to whether they will not interpret the whole thing as a vote of want of confidence and resign. The college would have no difficulty in filling up their places, if they were to do so, though that was not by any means the intention of those who led the opposition.

A great scandal has just taken place in the profession, in the shape of the resignation of the entire staff of the Northwest London Hospital, on the ground that they were dissatisfied with the way in which the hospital was managed, and because one of their number had been dismissed without being informed of the charge made against him, or asked for any explanation. At present it would appear as if the hospital authorities were in the wrong, but we have not heard what they have to say in the matter, and it seems as if the staff had been a little precipitate in their action. R. M.

Dr. J. B. Shapleigh writes from Vienna, under date of June 28th, that the cholera scare has caused a general cleaning up of the city. The sewers have been flushed, and carbolized; and other precautions taken.

ENCYCLOPEDIA OF MEDICAL WIT, HUMOR AND CURIOSITIES OF MEDICINE.

The undersigned proposes to publish during the coming year a large volume under the above or a similar title.

In this undertaking he respectfully solicits the kindly aid of the profession. Witticisms, and anecdotes of a humorous, or curious nature are solicited. There are numberless unpublished experiences that would prove a source of amusement and instruction, and all physicians, druggists, dentists, and others supplying original contributions will receive due credit in the work.

Information regarding suitable literature—home and foreign, ancient and modern—will be gladly received, and highly appreciated. The author is especially anxious to avail himself of every source, and would highly appreciate all information concerning publications likely to be useful for reference.

All letters, contributions, clippings, books and other matter should be addressed to

JULIUS WISE, M. D.,
806 Olive street, St. Louis, Mo.

THE SIMS' MEMORIAL FUND.

STEAMER RHYNLAND,
Off JERSEY CITY, July 5, 1884.

To the Medical Societies of the State of Missouri:

I sincerely trust that the interest shown by members of the various medical societies of the State of Missouri in the suggestion made by me at the meeting of the State Medical Society at Sedalia with regard to a collection by me, made to swell the Sims' Memorial Fund will not be allowed to flag.

Let the sums collected be such as to worthily represent the State of Missouri on the list,though the amount subscribed by each individual member need not exceed two dollars. If every one who reveres our great countryman, the father of modern gynecology, of gynecological surgery, need but add his mite, our State need not be ashamed of itself.

I would beg that the lists of contributors, and checks for the amount contributed, be forwarded to me, upon my return to St. Louis, in October, so that I can then remit to the Central Committee and forward the lists as names of all subscribers will be published.

Respectfully, GEO. J. ENGELMANN, M. D.
Member Sims' Monument Fund Committee for the State of Missouri.

The Philadelphia Medical World has issued a chart on the "Urine in Diseases," which is very convenient for ready reference. The chart and World one dollar a year.

"Tennessee Journal of Medical and Surgical Diseases of Women and Children," is a portion of the title of a new quarterly journal, published at Nashville, by H. J. Wells, M. D. Price of subscription, fifty cents a year, which is just a half a dollar more than the journal is worth.

THE WEEKLY MEDICAL REVIEW.

VOL. X. NO. 4. CHICAGO AND ST. LOUIS, JULY 26, 1884. TERMS: $3 A YEAR.

CONCERNING CHOLERA.—The following is the advice of the British Med. Journal relative to cholera and summer diarrhœa:

Advice to individuals and communities concerning the prevention of cholera, and the summer diarrhœa which sometimes precedes it, may be summed up briefly. Asiatic cholera, as known to us in England, is essentially an infective disease, spreading chiefly through the water. This was first proved by Snow, and again demonstrated in the following English epidemics by Simon and Farr, and in relation to the last epidemic in London by Netten Radcliffe and Ernest Hart, who jointly traced it to the East London water. Koch's researches only elucidate and confirm this fact. The first and essential precaution is, therefore, to drink only pure water from pure sources, or, failing this, to boil all suspected water and destroy the poison of its contained nastiness. Pump-water, well-water, and river-water should alike be regarded with suspicion unless their sources be known to be pure, and the water be uncontaminated in passing from the source to the consumer. Pumps and surface-wells are especially open to the gravest objection. It follows that cisterns, water-pipes, and the water appliances of houses, should be overhauled by an expert, unless they be known to be safe and clean without reproach. Next, all sources of putrefaction, dust-bins, drains and sewers, must be regarded as capable of becoming centers and avenues of infection, and should, therefore, be put into perfect order and kept clean. Unripe or over-ripe fruit, and stale vegetable and animal food should be eschewed. Rigid personal cleanliness, regular habits, abstinence from any but very moderate use of alcohol, avoidance as far as possible of excessive heat and fatigue, are all important aids in maintaining the health and averting the tendency to diarrhœa which favors reception of the choleric infection. Our greatly improved water supply, our system of sanitary inspection, and our better understanding of the physical conditions of health in habitations and in the individual, are so many safeguards against cholera. In so far as we have neglected to complete and perfect them we are still liable. In Mr. Ernest Hart's address on "The Prevention of Cholera," given last year at the National Health Society, he pointed out the relative prevalence of typhoid or enteric fever as the index of our liability to invasion of cholera. It is one which may be relied on, and this is not altogether of good omen. We cannot always hope to escape the invasion of cholera. If it spread, the public must blame themselves, and not the medical men who have, in season and out of season, for years past pointed out the paths of safety. Above all, let there be no panic. Let us not have in England any such deplorable scenes as have made Toulon lately so painfully and signally memorable in the annals of civic and sanitary history.

GASTROTOMIES REVEALING ACCUMULATIONS OF HAIR, ETC.—Two cases of this remarkable phenomenon have of late been recorded. One by Schonbom in the Centralblatt f.d. Medicinschen Wissenschaften. The patient, a girl of fifteen, was hypnotic and had suffered from epigastric pain. Towards the right of the abdomen was a tumor which was taken for a movable kidney and an operation was undertaken with the expectation of removing the floating kidney. Further operative investigation, however, revealed a tumor in a displaced stomach. The stomach was opened

and a mass of hair was found weighing nine ounces. On the outside it was black but the central part was light brown, corresponding to the color of the girl's hair. That on the outside had evidently been dyed by the administration of iron under the supposition of the existence of chlorosis. She acknowledged to have been in the habit of chewing vigorously the end of her long plait. Schonbom collected seven similar cases,all of which ended fatally either from uncontrollable vomiting or from perforative peritonitis. The case upon which he operated recovered perfectly in three weeks. Mr. Knowsley Thornton, England, also operated lately on a girl of 18 afflicted in a similar way, but the accumulated mass was in this case nine and a half inches in length and five in breadth at the cardiac extremity. The stomach was opened by an incision five inches long. Very little hemorrhage ensued and the mass was extracted by a vulsellum. At the time the British Med. Jour. made the above note, two days after the operation, the patient was doing well.

We are led to infer relative to the latter case that the condition was realized before the operation was begun, whilst the former case shows how important it is previous to any operation to be prepared beforehand for any emergency that may arise.

Late Marriages.—Dr. F. Steinman, of St. Petersburg, has published (Lancet) the result of his researches into the question of how far childbirth and lying-in are unfavorably affected by the primipara being old when she first becomes a mother. The estimate of the time when a primipara is called old varies between twenty-five (Fasbender) and thirty-five years (Mangiagalli), but Dr. Steinman accepts that which most authorities have adopted, viz., thirty years. From twelve years' statistics of the St. Petersburg Maternity Hospital, during which time there were 28,279 deliveries, it appears that there were in that period 645 old primiparæ. Of this number a fraction over 69 per cent. were thirty to thirty-four, 26.2 per cent. thirty-five to thirty-nine, and 4.2 per cent. forty years and over; one of these was fifty-two years old. In 1875, when the general mortality was three and a half per cent, that of old primiparæ was nearly fourteen per cent.; and again in 1881, when the general mortality was only one half per cent. that of the old primiparæ was eight per cent. A decidedly greater fetal mortality when primiparity is late is also shown by the statistics collected by Dr. Steinmann, and, although the subject demands more attention from the profession than it has heretofore received, the facts adduced by him furnish strong reasons for objecting to late marriages.

Death from Chloroform Given in Child-Birth.—The N. Y. Medical Record states that a death under chloroform occurred recently at St. Bartholomew's Hospital, attended by circumstances of an unusual character. The patient was a woman seven and a half months pregnant, who had been admitted into hospital on account of placenta prævia. On the day preceding the fatality, chloroform had been taken by the woman without any symptoms indicative of danger; but soon after the second administration was commenced, respiration and pulse became suspended, and death was unmistakable.

Injection of Cold Water to Expel the Placenta.—The injection of cold water into the umbilical vein in *post-partum* hemorrhage and adherent placenta (Dr. W. W. Jaggard, in Chicago Med. Journal) was ably advocated and extensively practised by Mojon (1826), Kilian and others. The umbilical vein is divided transversely, a tube or quill fastened securely in the proximal extremity, and cold water injected slowly and carefully into the placenta, by means of an ordinary syringe. The cold water forcing its way into the placenta, distends that organ to twice its original volume, escaping through the lacerated utero-placental vessels, bathes the endometrium, and stimulates the uterus to powerful contractions, usually resulting in the total separation and spontaneous expulsion of the after-birth. Stoltz and Rombach (1855) have

extolled most highly this measure, while Linéard (1875) claimed that the injection of 150 grammes of pure cold water into the umbilical vein was "the best, most reliable, and least dangerous expedient in all cases of *post-partum* hemorrhage or adherent placenta." At present this method is extensively practised in Germany, more particularly in Bavaria. Scanzoni, in Würzburg, practises this method exclusively.

Diagnosis of Pleuritic Exudations by the Tuning-fork.—The following are Dr. Federico's conclusions relative to the utility of the tuning-fork in the diagnosis of pleuritic effusions and exudations (Gazetta Medica di Roma, Med. Record, July 5, 1884): 1. If the vibrating tuning-fork be applied to any part of a normal thorax, a full, distinct and augmented sound results. 2. When made to vibrate while in contact with thoracic parietes within which there exists an effusion, and particularly if placed over that portion of the chest where the dullness on percussion is most marked, the tuning-fork emits a short, obscure and muffled tone. 3. The sound is shorter and more muffled in proportion as the fluid is more abundant. 4. Although the author has, thus far, only experimented with serous effusions, he inclines to the belief that the sonorous vibration of the instrument would be still more weakened and obscured if the effusion were rich in corpuscular elements. This theory derives support from the fact, experimentally demonstrated by the author, that the vibrations of a tuning-fork immersed in a watery fluid contained in a thin vessel are communicated to the receptacle, while the vibrations cease to be perceptable when the serous fluid is replaced by a purulent one. The author recommends the adoption of the following precautions in the application of the tuning-fork to its proposed diagnostic use: 1. The instrument should be placed in contact with corresponding parts of both the normal and disease half of the thorax, for purposes of comparison. 2. An instrument with long branches facilitates the perception of slight variations in pitch and quality. 3. The vibrations imparted to the tuning-fork should be of moderate intensity, lest they be transmitted to the stomach and colon and be thereby unduly augmented. 4. A certain amount of force should be employed in holding the instrument in contact with the chest-wall, as the vibrations are not well transmitted if this precaution be omitted.

Tracherrlohaphy.—Emmet has stated that he now performs the operation only once where he formerly did it ten times. He finds that by curing an existing endometritis and cellulitis the tissues which had rolled out and produced an ectropion, giving the appearance of a considerable laceration, are curable by appropriate treatment and an operation becomes unnecessary. The above is from Dr. J. Taber Johnson's paper on the subject in the Jour. Am. Med. Association. Later on he says:

"I think I have proved, from the best of testimony, that Emmet's operation does not cause sterility when properly performed, that relaceration is no more prone to occur after the operation than before, and that severe and protracted labors do not follow as a consequence; that it is not without its dangers, 10 deaths occurring in a little over 3,000 cases, besides a number of instances of hemmorrhage and cellulitis not fatal. I believe the cervix is operated on in many cases which might have been cured by proper treatment; and I believe also that the operation, when properly performed and clearly indicated, is one of the greatest improvements of the age.

Rags from Egypt.—The daily papers have expressed a certain concern about the importation of rags from some of the regions infected with cholera, the fear being expressed of their introduction into America by way of Canada. We also learn from a circular issued from the Treasury Department that all rags introduced into the United States have to be subject to disinfection by one of the following processes:

1. Boiling in water for two hours under a pressure of fifty pounds per square inch;

2. Boiling in water for four hours without pressure; and

3. Subjection to the action of confined sulphurous acid gas for six hours, burning one and a half to two pounds of roll brimstone in each 1,000 cubic feet of space, with the rags well scattered upon racks.

Perhaps the cast-off rags of the destitute Egyptians and others of the Eastern world constitute an item of special wealth to us as Americans. As a matter of fact, however, the principal uses to which rags are applied are the manufacture of "shoddy" materials and paper. When we reflect, however, on the facility with which infection could at any time be introduced into our country by such a channel it would seem as though the duty of government would lie in the absolute prohibition of rags under any circumstances. America could certainly do without Egyptian or Persian rags, and that, too, without producing any marked deficit in her treasury. Although the question of disinfection maybe conscientiously observed as far as our own agent is concerned, it is very easy to realize that a single inadvertent act or a little device on the part of the exporting merchants may be the means of spreading contagion far and wide. It does seem a little inconsistent with our modern ideas of sanitary measures that rags which have been cast off by the most uncleanly people of the world should be admitted to this land of wealth free of duty, and if a physician requires a book on any question of hygiene or practical medicine; or an instrument of precision for the prosecution of his calling, such a book or such an instrument should be admitted only on the payment of a tariff varying from 20 per cent. to 60 per cent. Let us rather exclude the rags under any and all circumstances, as an ordinary sanitary measure, and by so doing free ourselves from any compunctions of conscience on that point and at the same time encourage the production of native products.

Chloral Hydrate as a Vesicant has been advocated by several journals of late. The following is the plan recommended by Dr. A. M. Fauntleroy in the Southern Clinic:

Powdered chloral sprinkled on adhesive plaster and melted by a gentle heat (not more than enough to cause the plaster to adhere to the flesh) is applied while warm to the part where the blister is wanted; within a few minutes a gentle heat is felt, increasing in intensity for a short time, then gradually easing off, and at the end of about ten minutes the part is free from pain. At the expiration of this time, or as soon as the pain has subsided, the plaster, if removed, will disclose a surface as effectually blistered as by a cantharidal plaster after six hours. Thus, within about ten minutes the work of an old fashioned blister is accomplished, with many advantages over the latter: (1) rapidity of action, (2) the ease of application, (3) the non-occurrence of strangury, and, (4) farther, it may never be taken off to have the blister dressed, but may be allowed to remain until the plaster loosens and comes off itself, the blistered surface in the mean while healing kindly.

A Case of Acute Farcy in Man was reported to the Académie de Médicine recently by Dr. Bucquoy. The patient, aged 19, was syphilitic and the symptoms he presented were those of masked typhoid fever. A very close examination revealed a small round ulcer, the size of a silver quarter, on the external part of the right leg. Higher up on the thigh there was a small fluctuating pouch, covered by a thin and violaceuos skin. The diagnosis had not been made up to this time. In a fortnight after admission the patient had an intense and prolonged rigor and the next day a redness accompanied by œdema and markedly phlegmonous at the tibio-tarsal articulation. An eruption of bullæ of variable sizes subsequently appeared which became filled with pus. Death rapidly supervened. The diagnosis was verified by inoculations practised upon guinea pigs and upon asses. The horse, affected with farcy, from whom the disease was contracted was also traced. The autopsy of the patient revealed merely the lesions of purulent infection, and the case was altogether an unusual one on account of the obscurity of the symptoms.

THE ADVANTAGE OF CAFFEIN OVER DIGITALIS IN HEART DISEASES have been formulated by Prof. Franz. Riegel, of Berlin, and are reproduced in the Med.-Chir. Corresp. Blatt. From his observations, the author believes that caffein as a regulator of the heart's action is superior to digitalis. Given in proper doses and suitable form, it increases the arterial pressure. It rapidly increases the amount of urine. The indications for the employment of preparations of caffein are, in general, the same as those for the use of digitalis. The best way of employing it is in small and repeated doses. It differs in its action from digitalis in that it acts much more quickly and has no cumulative effects. Even in those cases where digitalis fails, a trial with caffein is indicated. Narcotics, and especially morphia, are not to be given in conjunction with caffein. Of all the easily soluble double salts of caffein, the benzoate of soda and caffein, salicylate or cinnamylate are the best, the last being also useful for subcutaneous injections, and are all borne much better than digitalis.

THE CONICITY OF STUMPS OF LIMBS AMPUTATED IN INFANCY according to M. Verneuil, depends upon the rapid growth of the bone, which is itself dependant upon the action of the epiphyseal cartilage. It is found that although these stumps appear well-nourished, at the extremity the bone protrudes and is only covered by the skin which is thin and often adherent. Lately the author had occasion to resect 10 centimetres of the bone of a young man, aged 18, in whom amputation was performed at the age of 4.

In view of these facts, M. Kirmisson concludes, that amputations should be avoided in children, which is permissible now, in view of the great advances made in antiseptic surgery. In the second place, reunion by first intention should be sought, when amputation is performed, and the flaps should be made as ample as possible.

Ergot and ergot and digitalis are favorite remedies here in the West for the treatment of pneumonia.

CONTRIBUTIONS.

A CASE OF INFANTILE PARALYSIS; DEATH IN FOUR DAYS.

BY H. HATCH, M. D., QUINCY, ILL.

On Saturday, May 30, 1884, Mr. H., a well-to-do German farmer, called at my office, bringing with him his son Albert, aged three years and eleven months. The history of the case up to the present time as given by the father is as follows:

Two days previous (Thursday), in the morning after the child had been awakened from a supposed good night's rest, it was found that he could not stand. The parents, thinking it nothing serious allowed him to remain in bed all day. He ate little or no food and so continued until Saturday afternoon following, when he was brought to my office as above stated. Up to the onset of the present attack the parents told me he had never been sick a day in his life. I found him to be an extraordinarily well developed child, and large for his age; bowels constipated, tongue slightly coated, pulse 80, and complete loss of motion and sensation of the lower extremities extending as high up as the first lumbar vertebra. My diagnosis was infantile paralysis;my prognosis I reserved from the the family, but in my own mind I thought the child would ultimately make a good recovery. The treatment I advised was the immediate evacuation of the bowels, and for that purpose I prescribed castor oil 8 grammes every four hours until the bowels were fully evacuated; tepid water baths with moderate friction four times daily; also the following compound:

		grms.
Pot. Brom.,	- - -	8
Cinchonidia-Sulp.,	- -	3
Tr. Nuc Vom.,	- - -	12
Spts. Lavend. Comp.,	- -	8
Syr. Simp.,	- - - -	60
Aqua-Dest.,	- - qs.ft.,	120

Sig. One teaspoonful every 4 hours. With the above I expected to see the child improve, and so stated to the parents and told them to let me know in a day or two how the child got along; the next day (Sunday), the father returned with the child; found the pulse, temperature and all the secretions normal; no appetite, and somewhat weaker; ordered the bromide, cinchonidia, Nux Vom., compound continued along with the baths and friction.

On the following day (Monday), a messenger came for me and told me to come as soon

as possible to see Albert, a distance of about three miles from my office. When I arrived there, much to my surprise, I found the child dead. Now the question comes up in my mind What killed the child? The parents tell me that five minutes before it died it was perfectly rational and talking freely. A post-mortem was not made. I have had a more than ordinary opportunity of studying disease. I have looked up the literature of infantile paralysis and kindred diseases, and I have been unable to find any similar case reported, and after all this work and study I am somewhat at a loss to know what was the real pathological lesion. I believe it was hemorrhage within the spinal canal and blood pouring out of the lacerated vessels into the spinal canal, so to speak, drowned out the child's life, and it might properly be said the child died of spinal apoplexy. I have reported this case as being an uncommon one, and with the hope that more definite knowledge may be secured in the diagnosis, treatment, and pathology of this and kindred diseases. Had I had a more positive knowledge as to what might be the exact pathological conditions in the case, I am confident my treatment would have been different.

June 10th, 1884.

REPORT ON OPHTHALMOLOGY AND OTOLOGY.

BY R. TILLEY, M. D.

Read Before the Illinois State Medical Society.

No topic in the domain of ophthalmology has received more attention during the past year than the condition known as trachomatous or granulated lids. The question has been the more interesting as for some time it was thought that the remedy recently advocated for its relief held an intimate relation with the more general question of the influence of bacteria on the animal economy. We shall see, however, later on, that this position is not tenable. It has already occurred to you that the remedy we thus refer to is the jequirity bean, the seed of the shrub *abrus precatorius*. To make the matter as tangible as possible, we exhibit to you the bean in its natural condition, also the powder obtained from the whole bean, and from the bean deprived of its cortex. As you can examine each specimen personally, no description will be attempted. We also exhibit to you a glycerine maceration. In all these samples, except the whole bean, we ask you to note particularly the peculiar odor.

We must remind you that this bean was first brought to the notice of the profession from Brazil, where it had been used for many years for an inflammatory condition of the eyes, which seems to be very common in that region. It was introduced to the profession through Dr. De Wecker, of Paris. In the summer of 1882 De Wecker was making his first observations relative to its influence. A few trials convinced him that a watery maceration of the bean was capable of developing an active inflammatory condition of the conjunctival mucous membrane. It had been long recognized by observers that one means of disposing of the sluggish sarcous growth known as trachoma was by exciting an active inflammation, and for that reason pus from gonorrheal discharges had been again and again used, but for obvious reasons had never been generally accepted. The resort of such earnest and practical men as Critchett, Lawson and Warlmont to gonorrheal pus for this purpose must be taken as evidence of the unsatisfactory therapeutical measures; at any rate, in a number of cases, of sulphate of copper and the like remedies; hence, the eagerness with which this new remedy was heralded all over the world. Within a few months after De Wecker published his first article on the subject, reports appeared in medical journals from every region testifying to its efficacy, some of them coming from Australia. The means that have been adopted of preparing the bean for active use has been by making an infusion of the decorticated seed. Hippel, however, says that the cortex has no injurious influence. As the strength of the infusion varies greatly according to the length of time the preparation has been made, the reason of which will appear later on, we will not occupy time by discussing the various proportions in which the bean has been used. We will remark, however, that De Wecker has been accustomed to use a three per cent. maceration. Various directions have been given about filtering the fluid as well as other details, but to a large extent each observer has adopted a plan of his own, and in many cases the disastrous consequences which have followed have been due to a want of attention to the directions laid down.

The application has been made as a rule three times a day for about three days. I has been brushed over the palpebral conjunctiva, the false membranes having been re-

moved when practicable before making a fresh application. After about nine such applications the further treatment has consisted in simply bathing the eyes with hot or cold water, according to the pleasure of the patient, neglecting no attention which could contribute to his comfort.

The result is that in a period varying from six to twenty-four hours, inflammatory manifestations develop themselves in the conjunctival tissues. During the next twenty-four hours the inflammation is considerably increased, marked swelling of the lids occur, and a croupous membrane covers the conjunctiva. Constitutional symptoms in the form of chills occur, these are so marked that it is difficult to persuade the patient that he has not taken cold. The appetite fails and frequently severe pain is experienced through the head. At this stage the swelling is alarming, and apt to cause a good deal of anxiety to those who see it for the first time. With such a degree of swelling, it cannot be otherwise than that the cornea is in some danger. De Wecker's caution on this point, that the treatment can only be efficiently carried out in a hospital—although we do not partake of the opinion—evidently points to this danger, and it must be remembered that not a few eyes have been lost, and quite a number of cases have been reported unimproved. At the same time we but anticipate ourselves here by saying that in well selected cases where great care has been taken in the diagnosis, that for a chronic case of trachoma associated with pannus, judicious use of jequirity maceration constitutes an excellent therapeutic means worthy of all consideration.

On the cessation of the application the constitutional symptoms diminish and the local trouble grows less. From this time on in the favorable cases, there is a steady improvement for a period of several weeks; in cases of long standing pannus the improvement continues even longer. In one case of personal observation where the pannus of nine years standing was so dense that the patient could not see to feed himself, yet, at the expiration of three weeks he was able to see the stars for the first time in nine years. Dr. Gruenning published two cases as early as March 17, 1883; and still later Dr. Miles Standish published thirteen cases in the Boston Medical and Surgical Journal, June, 1883, where the conditions, symptoms, treatment and improvement are well defined. Other articles also appeared in the Medical Record, and in the Australian Medical Gazette in July of same year. From this time on articles are to be found practically in all medical journals. I have this morning received as editor of the Weekly Review* a contribution from Prof. W. E. Ground, M. D., of Toledo, O., detailing the use of jequirity in the two eyes of the same individual. The result in the one eye was a restoration of practically normal sight, whilst in the other panophthalmitis developed and atrophy of the eye ensued. It appears by a paper from W. Rudall in the Australian Medical Gazette that a specimen of the plant from which the bean is obtained exists in a collection which was made more than 300 years ago by a Dr. Leonard Ranwolf, and is still to be seen in Leyden. No mention of its use in the eye was made before 1862. In a work published by Dr. Rosenthal (Synopsis Plantarum Diaphoricarum page 1082), the first reference being made very indefinitly.

De Wecker's first articles were published in the fall of 1882, and his experience gave rise to the observations referred to above. We must, however, notice more at length a series of articles which appeared in the last number of the Archives of Ophthalmology, March 1884. Of this series De Wecker's and Dr. Emil Gruening's articles deserve special notice; Dr. Wecker's as embracing his more mature experience, and Dr. Gruenning's on account of the manifest fidelity and lucidity with which he details his cases.

Dr. Wecker lays particular stress on the necessity of preparing the infusion personally, or to have it prepared by a reliable assistant. He further lays great stress on the necessity of using it fresh, the powder being put into the water about three hours before it is required, and that it should have the characteristic odor of jequirity as a proof of its utility. He considers a three per cent. infusion strong enough, and does not think it possible to distinguish between the effects of a three and a ten per cent. The reason of this seems to be that the acting agent is only slightly soluble in water, and that a three per cent. gives probably a saturated solution. He finds it necessary now to make only one application, or not to repeat it for forty-eight hours. He finds it dangerous to make the applications as often as they were made at first. He further thinks it contraindicated in a purulent or succulent conjunctivitis, and that its use should be restricted to those cases in which the granulations are dry, and that granulations of the succulent variety should be rendered dry by cauterizations previous to the use of jequirity.

* Weekly Medical Review, No. 26, vol. ix. page 508.

Testimony quoted by De W. to its value is borne by Vallez, who states that severe cases were taken from the hospital for the incurables and discharged able to work. Hippel, also says patients who when admitted could not walk alone were discharged able to work.

Dr. Wecker especially recommends this remedy in the sequelæ of diffuse keratitis. In such cases he has seen the vision raised from 20-200 to 20-30. The changes noted by him are: The development of a peculiar jelly-like chemosis which develops upon the globe, and especially around the cornea; and a remarkable reduction of the tension of the globe—the tension being represented by him by —T 3. Your committee, however, suggests that the estimation of tension under such circumstances would be very difficult.

Dr. E. Gruenning's report embraces 20 cases of various ages. The average number of days under treatment was 32; of the 20 cases, 12 were of a chronic difficulty, 9 of which were cured or improved, and three not improved; eight cases were of an active affection five of which were cured, but four out of the five exhibited conjunctival scars, and three were not improved. The ages of those exhibiting scars are 8, 13, 20, 41; and the ages of those not improved are 9, 15, 14, 10, 13, 50, the large majority as you will see, under 20. It would seem from this that some circumstance associated with the treatment is not favorable to the more tender years; because if we omit the two cases, one 41 and the other 50, we have in all nine cases, four with objectional scars and five not improved, all under 20 years. This is substantiated by one case from another physician's report of a child 9 years of age, when both cornea were in the first place perfectly clear, but became perforated, healing, however, with an adherent not quite central leucoma. It should be stated here that the child was not seen for three days after the application. This suggestion of the treatment not being applicable as a first treatment to children is substantiated by the statement of Dr. W., that only dry granulations are eligible for this treatment. Dry granulations rarely occurr in children unless they are rendered dry by cauterization.

The conclusions which we think justifiable from present experience are:

1. That a three per cent. fresh infusion of the decorticated, pulverized jequirity bean is efficient in reducing chronic dry granulations of the conjunctiva, and pannus.

2. That it is more efficient than any remedy which has hitherto been used.

3. That its use should be avoided in the succulent variety of conjunctivitis.

4. That its use is questionable in young people unless the eyes have been previously treated for some time with sulphate of copper.

5. That the physician should make the infusion himself or intrust it only to a reliable assistant; that it should be fresh, having the characteristic odor.

6. That one application is often sufficient, and that it should not be repeated within forty-eight hours.

7. That during the acute inflammatory stage the patient should be seen at least every day.

8. That in all probability a glycerine maceration diluted to the required strength at the time of using will be the future method of employment.

I must not neglect to call your attention to what has been thought to be the active agent in this method of treatment. It is a fact that bacteria develops very quickly in the infusion of jequirity, as in fact they do in infusions of all vegetable substances. This fact associated with the amount of thought which is at the present time given to bacteria, together with the fact that the pus of gonorrhea which has also been successfully used in such cases, has also been shown to exhibit its micrococcus, readily disposed investigators to the idea that we had, as the chairman of practical medicine expressed himself in Washington, "pressed into our service the ubiquitous microbe." This view was at first presented to the profession by Sattler, of Erlangen, as the result of a serious investigation, and his observations were corroborated by others.

Sattler claimed that the bacillus found in the infusion was the active agent in the therapeusis.

That the bacillus of pure culture was capable of provoking similar active inflammation.

That the bacillus was found in the secretions, and membrane developed on the conjunctiva.

And that the infusion without the bacillus was powerless to develop the active inflammatory condition. All these points have been completely demonstrated, by Neisser, of Breslau, and Salomonsen, and Dirckink-Holmfeld, of Copenhagen, to be erroneous. Not only has it been shown that the bacillus is not the active agent, but that in proportion as the bacillus develops the infusion loses its strength; that the predominating bacillus in the infusion is absolutely incapable of exciting inflammation; that no bacillus is ever found in the membrane developed upon the conjunctiva; that an infusion absolutely free

from any bacteria develops the characteristic inflammation.

Salomonsen and D. Holmfeld have gone further: they have isolated the active ingredient and found it to be an amorphous ferment, insoluble in alcohol, chloroform and ether, only slightly soluble in water, but quite soluble in glycerine. This circumstance, namely, its comparative insolubility in water, will explain the experience of De Wecker, who could not discover any difference in the effects of a 3 per cent. and a 10 per cent. infusion.

The probability is, then, that if we continue to use the jequirity, the medium of its solution will be glycerine; it can then be properly diluted at the time of using. A glycerine maceration retains its characteristic odor apparently indefinitely. Salomonsen has shown that one drop of a one per cent. solution of a 2 per cent. glycerine maceration of the bean was capable of developing in twenty-four hours an active conjunctival inflammation. In other words, that the amount of the active principle contained in the $\frac{1}{100000}$ of a gramme of the bean would develop a conjunctivitis.

We will not pursue this question further relative to the eye, but will venture two reflections of special interest to all:

1. It is not likely that an agent so powerful as this ingredient found in the jequirity bean will be confined to its influence on the eyes; granulations elsewhere may be favorably affected by it. We may say that personally we have already used it in certain forms of adentis in the posterior nares, but the distress it gives to some people is very considerable. Its peculiar virulence, moreover, when introduced into the system is of special interest.

2. Inasmuch as the active agent of the jequirity has been shown to be an unsuspected ferment, which when injected into the body of animals quickly proves fatal, is it not possible that some of these quickly fatal cases of diphtheria and scarlet fever are due to the development in the organism of some poisonous animal ferment with which we are not yet acquainted?

[TO BE CONTINUED.]

Hutchinson remarks of iodine and its derivatives: "Not even the syphilitic virus itself is capable of producing a greater multiplicity of pathological changes in the integument. Now it is a hemorrhage, now a thrombosis, now an erythema, now a bulla; the commonst of all forms is an acne: but in addition to it and to these I have named we may have, at the same time, pustules, butter-like tubercles, and in aggravated cases enormous soft tuberous growths."

A RECENT CASE RECORDED ILLUSTRATIVE OF THE CONGESTIVE ORIGIN OF LOCOMOTOR ATAXIA.

BY C. H. HUGHES, M. D.,

Consulting physician St. Louis City and Female Hospital, Lecturer on Neurology Etc., St. Louis Medical College.

Mr. F., æt. 31, unmarried, has been an industrious and healthy farm laborer, never had any venereal taint, six months ago was engaged in mauling rails with an unusually heavy maul, for several days in rainy weather. One day, after vigorous exercise for several hours at this occupation he sat down in his shirt sleeves to rest, when he became quite chilly and complained to his comrades that he felt very cold in the lower and upper part of his spine. He then attempted to get up and walk, but his feet jerked when he attempted to move them and came down "just where they wanted to." The patient then became unconscious and had a convulsive seizure lasting a minute or so. He recovered from this with his head clear, but with confused and double vision, an such external sensitiveness to sound and general hyperesthesia with localized pain in dorsal spine. The noise of ordinary conversation was unbearable; a puff of wind disturbed him. Mental agitation and insomnia also set in. All symptoms became much ameliorated under treatment. His eye and head symptoms have disappeared. The patient walks much better than he did. The jerking movements have disappeared, but attacks of pain come on in the spine between fourth and fifth lumbar vertebræ, some fugitive pains occasionally appear in the legs and knee and ankle clonus were exaggerated in the left, while the ankle clonus of the right side was slight and the knee jerk was *nil.*

The writer has elsewhere (Alienist and Neurologist July) expressed the conviction that the priataxic stage of sclerosis is congestion. This case, although not one of typical and confirmed sclerosis posterior, but rather pointing to implication of both the antero-lateral and posterior columns is suggestive.

This case from present appearances will go on to complete recovery, such secondary degeneration as may have resulted being arrested and supplemented by vicarous function, as there are no evidences of myelitis and no tetanoid paraplegic symptoms and if it does, it will tend to confirm the writer's already expressed conviction that there is probably an initial presclerotic stage of sclerosis of the columns of Goll, Burdach and Türck, where

therapeutic measures are not without promise. This is an especially tenable hypothesis in view of the additional fact that marked amelioration sometimes follows treatment even in advanced ataxia and that cures have even lately been claimed for cases of confirmed sclerosis. The reader who may be further interested in this subject may find the subject of the present note and matter akin to it further discussed in the article referred to entitled the, curability of locomotor ataxia and the simulations of posterior spinal sclerosis.

A CASE OF LACERATION OF THE CERVIX UTERI AND EPITHELIOMA.

BY J. T. JELKS, M. D., HOT SPRINGS, ARK.

Professor of Surgical Diseases of the Genito-Urinary Organs in the College of Physicians and Surgeons, Chicago, Ill.

(Read before the State Medical Society of Arkansas at the Ninth Annual Session, Little Rock, Ark, April 30, May 1st and 2nd 1884).

Mrs. K., æt. 42, married and mother of four children, youngest thirteen years old, consulted me in January, 1884, for pain in the right ovarian region, pain and dragging sensation in back and groins and general hysteroneurosis. Has not been well since the birth of her last child.

Upon digital and speculum examination I found considerable tenderness in the right side of pelvis, uterus retroflexed, cervix lacerated down to the vaginal junction on the right and slightly on the left. Growing from the posterior lip at the angle of the laceration on the right side was a small epithelioma. The perineum was torn about half its width and the uterus was large and low in the pelvis.

I advised an operation both in the cervix and the perineum. She consented to have one of the two performed. After two months preparatory treatment directed to the pelvic celulitis, with the assistance of Dr. R. W. Wilcox, late House Surgeon to the Woman's Hospital of the State of New York and Drs. Scott & Thompson, of Hot Springs, I made the operation of trachelloraphy. In the operation of denudation I cast away as much of the surface of the posterior lip as I thought justifiable, taking off the epithelial growth at the same time. The operation was performed only on the right side, and four silver wire sutures put in. On drawing the parts together I found there was too much tension, and with the scissors I removed more of the cicatricial tissue in the angle of the laceration; during this I accidentally cut one of the sutures, the first one put in, and had considerable trouble getting it again in its proper place. I also had quite a brisk hemorrhage from the circular artery divided during the process of paring. The bleeding being checked the wound was washed out with a solution of mercuric bichloride, 1 to 1000, and closed by twisting the wire sutures. On the second day after the operation she had a smart attack of pain in the right side of pelvis with considerable tenderness on pressure. Ordered hot water vaginal injections, and fifteen grains quinine. This soon relieved her. It being inconvenient to remove the sutures on the tenth day, they were allowed to remain in three weeks, when the parts were found to have fully united. Next day after their removal she sat up in bed and at present writing is doing well.

When the patient consented to have an operation performed it was a question with me whether I should amputate the cervix or make Emmet's operation, and finally decided Emmet's operation was better than amputation. The fact that epithelioma has long been known to be almost exclusively a disease of those who have borne children is now readily understood. We know that it is a disease local in its origin and a result of perverted nutrition. Again, since Dr. Emmet has shown us what a laceration of the cervix is he has also called attention to another fact and that is, that epithelioma of the cervix is an accompaniment of laceration.

He goes so far as to say that he believes it but rarely occurs except in such cases. Occasionally it appears in unmarried women. He gives two cases in single women, but they both had laceration of the cervix and confessed to him that they had been pregnant and had submitted to criminal abortion in order to hide their shame.

From recent oral communications from Dr. R. W. Wilcox I learn that Dr. Emmet now holds in every case of epithelioma of the cervix uteri the patient had either first borne children and presumably had a laceration of the cervix or second, had had an abortion, very likely artificial, or third, had had section (for flexion) performed, thus leaving the parts in the same condition as after laceration ; and of all the cases presented to him he had been able to determine one of these conditions even after the profession had taken great pains to bring to him cases that would controvert his statements.

In the discussion following the reading of Dr. B. F. Blair's paper before the Obstetrical Society of Philadelphia Dr. Goodell said he had seen but two cases of epithelial cancer in

women who had not borne children. Dr. H. Beatis had had under his care seven cases of uterine cancer and in each one the cervix was lacerated.

Dr. Goodell stated that he frequently operated on cases of laceration of the cervix, in patients, whose family history bore evidence of cancer, in order to prevent cancerous degeneration, and believed that was good reason for closing such rents.

My own experience has not been large but since my attention has been called to the matter I can say I have never seen a case of epithelioma of the cervix where the latter was not lacerated.

Then, if this be a fact, we have ample reasons for this operation, especially in those cases where there is a history of cancer in the family.

If we believe that cancer is, in its beginning, a local disease, the result of perverted nutrition, we have here a powerful argument for Emmet's operation. The mass of cicatricial tissue that forms in the effort of nature to repair the injury is certainly a fruitful field for "perverted nutrition" to play an active part in bringing on these new growths.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

REPORTED FOR THE REVIEW.

Stated Meeting, June 21st, 1884.

PERFORATION OF THE BLADDER—WITH SPECIMENS.

DR. DEAN.—I have a specimen; the patient was admitted to the hospital on the 10th inst., said to be suffering with stricture of the urethra and gastric trouble. He was aet. 54, single, a night-watchman. Said he had been complaining about a week, that he was first attacked with a pain in the groin and in region of the stomach that would last 12 or 24 hours and go away and come back again; he had had no fever; he had had no movement of the bowels during this time; his appetite was poor and for the past few days he had vomited frequently. He had been troubled with stricture of the urethra for about 25 years and had been in the habit of using the catheter himself during all these years; the abdomen was distended, tympanitic and tender on sudden deep pressure; he said he had no trouble with passing his urine more than usual, i. e., he passed but small quantities at a time, but he was as well as usual in that respect; we therefore did not think it necessary to catheterize, but gave him a dose of sulphate of magnesia and he had several copious operations of the bowels; still this irritability of the stomach and nausea and vomiting continued, also the tenderness over the region of the abdomen; nothing but milk and lime-water would stay on his stomach. On the evening of the 13th I was called to see him and he said that he had not been able to pass his urine that day. My assistant had vainly endeavored to pass a soft rubber catheter, but had introduced a filiform, and over that a small sized Gouley's grooved catheter-staff. He was not able to depress the outer end of the catheter and succeeded in getting but a small amount of the urine, after that a little would come away in drops. I found the abdomen was still tympanitic in the anterior portion, but dull further back as he lay upon his back, and that the respective areas of tympanitic resonance and of dullness varied somewhat as he varied his position. I tried to pass a soft catheter; then introduced, but did not succeed; the filiform; after it had evidently entered the bladder it would go no further but either bent or turned upon itself. I passed a Gouley's grooved catheter-staff over the filiform as my assistant had done and found I could get but a small quantity of urine, and then after an interval of a few minutes it began to come away in drops quite steadily. I removed this catheter and tried other instruments a little larger and didn't succeed. I finally introduced a No. 12 French soft rubber olive-pointed catheter and got the same results as regards the urine; first a half gill; the urine would then come away in drops. I at once diagnosticated rupture of the bladder and gave instructions to have the catheter tied in the bladder and kept there until I should remove it myself. There were several features about the case that were peculiar if we gave such a diagnosis; in the first place the man had had no fever during the time he was in the hospital, and gave no account of having had fever; he gave no account of having received any injury over the bladder or over the abdomen at any time; he gave no account of anything that would lead us to suppose this trouble had come on suddenly. I couldn't think it possible that my assistant had ruptured the bladder in trying to introduce this small instrument, for several reasons, and one especially, that is, the account of what he had found exactly corresponding with what I succeeded in obtaining the outer end of the catheter would not depress, there was a small amount of urine,

then drops. If he had ruptured the bladder when it was full there would have been evident symptoms, nevertheless I was satisfied that this was a case of rupture or perforation of the bladder and that the urine was probably in the abdominal cavity. The man was in a condition of collapse, so that laparotomy would not have been justified in my opinion. I have since regretted that I didn't use the trocar above the symphysis pubis and draw off the urine that was in the cavity. He died on the 16th. On opening the abdominal cavity we found it about two-thirds full (as to height) of yellowish colored urine somewhat thick from the secretion of the peritoneum, and a good deal of semi-plastic exudate, all about the intestines. I meant to have added among the symptoms that the man had constant hiccoughing, worse when he was on his back, I suppose from contact of the urine with the diaphragm: that was one of the features also which led me to diagnose as I did. At the summit of the bladder, opening posteriorly, was seen an opening nearly the size of a pencil: in fact, I might say there were two openings nearly or quite united. As he had been in the habit of using the catheter all these years I suspected, in making my diagnosis, that he had probably partially perforated the bladder and that it afterwards became entirely perforated, and the opening looked upon the surface very much as if this were the case. The bladder was very much thickened probably fully half an inch in thickness except at the summit, where there was a pouch about three-quarters of an inch in length and nearly half an inch in diameter, scarcely apparent upon the outside; the opening was through the summit of the pouch. Looking into this pouch from the inside of the stomach, it was almost closed; at its beginning by folds of the mucous membrane, running longitudinally into it, appearing to like a sphinctaer. The thin walled pouch is best seen by turning it outside in. I supposed that urine had at different times during the history of the last sickness passed through the uppermost portion of that little pouch in small quantities but had mostly dribbled away from the urethra; but the time had come when it would no longer pass by the urethra but entirely through the entering valve of this sac. I don't think an operation would have been of any use, certainly not after the diagnosis was made.

Resection of the Ribs for Empyema with Specimen.

Dr. Lutz.—I have a specimen which I will exhibit. In April, 1879, I reported to the society a case of empyema, or suppurative pleuritis, in which, for the purpose of a radical cure, I had performed resection of the rib and irrigation of the cavity, treating the empyema as a large abscess. Quite an interesting discussion ensued in which a number of gentlemen participated, and in which different views were expressed as to the propriety of that mode of procedure, some thinking that simple aspiration would suffice for a cure, others supposing that an incision into the intercostal space would accomplish the object, and I believe but very few sided with the operation of resection of the rib. It has been very definitely settled that except in the cases of small children empyema does not as a rule heal when it is removed by aspiration. It has been established that it is necessary to thoroughly open the pleuritic cavity and allow the purulent collection to freely discharge. Now the method to accomplish this may be either by a simple incision into the intercostal spaces sufficiently large to permit the introduction of a good-sized drainage-tube and sufficiently patulous not to prevent free irrigation. Resection of the rib as a method means of course a larger opening, freer access to the pleuritic cavity, and less danger of the accumulation and re-absorption of the purulent effusion. In connection with that question the reparative process so far as the rib itself was concerned was discussed and the question raised whether the rib would be again formed. I then held that it would, as was very natural because really it was nothing but a compound fracture with loss of bone substance, a comminuted fracture artificially made and would heal like any other fracture under ordinary circumstances, especially so if as in this case the periosteum was saved. There were no pathological evidences of the former existence of any inflammation; in short the evidences revealed by ascultation and percussion demonstrated that the pleurisy had been healed; that adhesions had taken place, which is the object to be accomplished; the man was to all intents and purposes perfectly cured. Since then, October, 1879, I have had this patient under observation; from time to time he would call at my office and two or three times during this period I have treated him for malarial fever. Up to about a week ago he was to all intents and purposes well; he was a hard working man employed in a brick-yard, which avocation he followed during the summer and in the winter did other hard laboring work, and he was perfectly able to do this. About a week ago he called at my office and his symptoms were, fever, dyspnœa and dullness over almost the entire left lung, which was

the side affected formerly, in short the symptoms were those of pneumonia. He was sick only a week and died on last Friday morning.

On post-mortem I removed the lower portion of the left thorax, together with a piece of pneumonic lung. Now if the gentlemen will remember that I operated on the left side, removed a portion of the line which falls from the middle of the axilla downwards and removed at that time a little more than an inch of the eighth rib they will appreciate the specimen. The gentleman who prepared this for me misunderstood me and removed the periosteum from the outside, so that it doesn't show as plainly and nicely as the inside does. In the left side there was still a depression, as is seen, of that rib. I found that the entire left lung was pneumonic; he was in the third stage of pneumonia; that the pleural cavity was entirely obliterated, except about half of the pleural covering of the upper half of the lower lobe; that portion of the pleuritic cavity in a normal condition, but that portion below completely encircling the pharynx was very adherent, so much so that it couldn't be removed by the introduction of the hand save by tearing the adhesions away as we ordinarily do; there was a tablespoonful of pus, but the pus seemed to be of more recent origin; it seems that a portion of the lung had started about three inches above the incision so that it was not connected with the old site of injury; the entire left lung was pneumonic in the third stage, and if the gentleman will now examine this specimen they will see that the excised portion of the eighth rib has been restored like any other fracture; the costal and pulmonic pleura over the site of the incision are firmly blended, so much so that I imagined there was very little motion of the lower portion of the left thorax, but as I say this man was at the time of his death about 48 years old, in good health before this and before the inflammatory process of the lung occurred, it seems to me rather more rapidly than it ordinarily does, because on the 7th day hepatization had already taken place and suppuration of a portion of the lungs. This specimen illustrates the repair of the rib after the injury and the complete obliteration of the pleural cavity by the formation of adhesions between the pulmonic and costal pleural accomplishing a complete cure. Since I operated on this man I have a number of times performed operations for empyema. I have, however, never, since that, resected the rib; I have succeeded in accomplishing the object that I wished to by a free incision into the pleural cavity and intercostal spaces, and in children, in five cases which have come under my observation, I have had but one death occur, and that was from septicemia. The others on which I operated, I made the incision into the intercostal spaces and permitted a free drainage, and thorough irrigation of the pleural cavity—I have had four of these—and all recovered. These results are sufficiently encouraging so far as the operation is concerned. I am not inclined to treat empyema by mere aspiration. I imagine that aspirating in a case of empyema is merely a diagnostic adjuvant. Where the effusion is a simple one we are very likely to have a cure, because absorption would readily take place, but if the effusion is purulent, nothing remains to be done, it seems to me, but to make a free incision and establish drainage of the cavity, and thorough irrigation. I found too that immediately after opening a pleuritic cavity in which purulent effusion has occurred, the patient will, before the operation, have a temperature of 103 or 104 degrees, and four or five hours after opening the pleuritic cavity, and the establishment of thorough irrigation, the fever will subside and the temperature fall as many as two degrees, and stay low as long as there is no purulent matter which can become absorbed from the cavity. If, however, on account of defective drainage, or because of a too long interval between irrigations, some of the purulent effusion is again absorbed, of course the temperature will rise.

Dr. A. Green.—Did the patient have any chills while he had pneumonia ?

Dr. Lutz. — Well, the pneumonia was ushered in by a chill.

Dr. A. Green.—Was the chill repeated ?

Dr. Lutz.—No, sir; not at all, he had only one chill.

Dr. A. Green.—Was the fever intermittent ?

Dr. Lutz.—No, sir; the fever was continuous; the first time I saw him his temperature was 103 and it continued that high during the week.

Dr. A. Green.—The reason I asked the question, Mr. President, was because I am inclined to think that this was a case of pyæmia, although I won't undertake to say that it was not, and although five years had expired since the operation in this case it makes no difference because Billroth and Luencke and others have reported cases of septicæmia and pyæmia which have developed after a standing of nearly ten years. In this case I do not think there are any symptoms to indicate the presence of pyæmia. I recollect the case, at the time it was reported I was one of those who opposed the operation I stated

that we ought to try aspiration first because statistics in German hospitals show a good many cases cured merely by aspiration, without operation; so that in these cases before resorting to the operation, we should try the effect of aspiration. When we open the pleural cavity containing pus weexpose the patient to pyæmia. The patient is in greater danger of pyemia after the cavity is open than when the cavity is simply aspirated, because we admit the air with its contents; we can wash out the cavity with antiseptic fluids even in aspirations, but as a matter of course if we see that aspiration will not do, we still have the opportunity of operating.

Dr. Dean.–I have had a good deal of experience during the past few years in aspirating the liver, chest, and other viscera, and I believe that in all our cases of hydrothorax I have succeeded by simple aspiration of the cavity and sometimes washing out with boric acid solution, but in pyothorax I have to resort to opening and the drainage-tube. I have now under my care one patient that had right pneumo-pyo-thorax. One could hear the succusson sounds three feet away. I aspirated him and washed out the cavity with a 3 per cent boric acid solution several times and in no case did the pus have a bad odor. I used no other drainage, and patient left improved with increasing resonance. He has now returned and has adhesion everywhere in the right chest. Of course I use aspiration first and foremost, as Dr. Lutz says, as an exploratory and diagnostic means.

Dr. Lutz.—In reply to Dr. Green I would say that I should perhaps have furnished a more complete history of the case before the operation was performed by bringing the printed volume of our transactions, it is already recorded that two or three times before resorting to the opening of the thorax I had aspirated. I believe at one sitting I removed two quarts of pus, at another a quart and half, and only after the pus had returned two or three times did I make the incision, and I believe now after a more extensive experience that it was the best kind of practice; I would hold so now. I don't believe that we ought to subject our patient's pleura to the continual presence of pus, I think after once having established the existence of pus the rule is to treat the pleural cavity as an abscess, which practically it is. Now, this pus is absorbed, and the simple removal of an empyema, enables the lung to more readily and rapidly absorb the contents of the pleura or rather enables the pleura to more readily absorb the noxious ingredients of the pleuritic cavity, and I mean that this condition of affairs would subject our patient more to the establishment of empyema than to open the thoracic cavity, and then by means of cleanliness and the establishment of thorough drainage to remove particles of material that might possibly be absorbed. In adults aspiration for empyema has resulted favorably in exceptional cases only; the very nature of the pathological process demands that the effusion should be removed; if purulent in its character it becomes a source of empyema, and we see on the part of nature a constant effort to evacuate the pus from the pleural cavity by making it burrow on all sides to escape outwardly into the peritoneal cavity and the patient dies of septic peritonitis. I have had such cases, in which a tumor the size of a hen's egg to the left of the sternum occurred and had no exit. Dr. Dean will remember a very interesting case which we had an opportunity of observing while at Sedalia, of pleurisy, not the result of an injury, but evidently associated with gangrene of the lung in which there was an opening about the center of the sternum. The patient having fever and expectorating a purulent material; in this case nature had established a point of exit in such a position that I was inclined to the opinion that the empyema would open into the mediastinal space. I have since learned this case was doing well without an operation. Ordinarily these cases of empyema result in death, unless the pus is evacuated, either by puncture or naturally, death occurring either from absorption of the pus, or else from injury done the neighboring viscera such as compression of the venous trunks or paralysis of the heart, etc. I believe that cases of empyema should be looked upon practically as large abscesses and treated by free incision, thorough drainage and cleanliness, whether that be done by the use of one antiseptic or another I imagines this matters little. Then the subsequent condition of the lungs is a matter of some importance after a case of empyema. In this case in which I operated I found that the lung was completely compressed, appearing much like a piece of flesh lying around the left side of the spinal column. With the mirror I threw light into the cavity, and could see very plainly the condition of the lung. It had been completely compressed and made useless for respiration for the time being. Now, if the lung is compressed a certain length of time the question comes up whether if absorption should take place of the contents of the pleuritic cavity, whether or not the usefulness of

the lung would be re-established. As a matter of no small importance in this case, evidently the larger portion of the lung was made useful subsequent to the operation, and it served its purpose in oxygenizing the blood. In this compressed lung, supposing nothing to have been done for the removal of the contents of the pleural cavity, the question is whether it would not have been a fruitful soil for the deposition of tubercular substance, and have caused great danger to the patient. Supposing the left lung to be affected should the right become diseased, for instance, the site of some acute inflammation. Such, questions connected with the subject ofempyema are of interest and importance, and should receive our serious attention· I remember a case in which for years a man had a pleuritic affection, purulent in its nature; he had been treated by various physicians, and finally consented to the introduction of a trocar, and I believe six quarts of pus were removed. He was so much relieved, his respiration so much improved by the aspiration, that he absolutely refused to have anything further done, in spite of my representations to him of the importance of an operation.

Three months after the pleuritic cavity had again filled; in the meantime he had been suffering from chills and very high fever, all that he would consent to was simple aspiration, so I aspirated him again, and so he had been aspirated four times. Finally when he was at death's door, having three or four chills during twenty-four hours and a constant temperature perhaps of 103 or 104°, he consented to an operation. I made a simple incision, introduced drainage tubes, but my patient died of empyema in three days after the operation; his lung was never serviceable during any time after the operation; there was never the least sound to be heard by auscultation, and I am satisfied that if he had submitted to a radical operation by incision and free drainage at first, that possibly he would have had his life prolonged; I do not think that is far-fetched at all.

Dr. Dean.—I saw the case to which Dr. Lutz alludes, a patient of Dr. Jackson's, of Sedalia. Dr. Gregory enlarged the small opening which existed at the right of the sternum, that he could introduce his finger.

Dr. A. Green.—If Dr. Lutz or Dr. Dean will step into my office I will show them in black and white the statistics of the German hospitals; I will show not only one case, but six or eight cases, that were cured simplyby aspiration. Then Dr. Lutz says a man would die of pyemia unless the exsection was made. Now we know very well what pyemia is; if we are very careful in putting in the aspirating needle and disinfecting it first we need not admit any air. It is very important that the air should not be admitted because it is pregnant with septic organisms, bacilli that will develop in this pus and produce pyemia.

Dr. Lutz.—I would ask the doctor whether he imagines that pyemia cannot occur without its introduction from without?

Dr. A. Green.—It might under certain circumstances when these germs are already in the system; it might occur without the introduction of air or any poison from without by means of the wound. I think there is a mistake made when we aspirate for pus in the pleural cavity. The aspirating needle should be introduced very low, say the ninth or tenth left intercostal space; that will enable us to remove all the pus, and we can do it without any danger at all, because the contents of the pleural cavity descend very low, and we can thus empty all the pus which exists.

Dr. Mulhall.—I think Dr. Lutz has presented the scientific aspects of the question. I only want to call his attention to a means used by an English physician which is an assistance to the lung in regaining its normal volume after the operation, and assists the costal pleura and pulmonic pleura in coming together again, forming adhesions and thereby a cure. After the operation he causes the patient to inhale compressed air; this is done on common sense principles, and he has used this means and speaks very highly of the result. It not only helps the lung expand, but assists in producing the adhesions of the costal and pulmonic pleura.

Dr. Lutz.—I want to correct one expression that Dr. Green makes where he attempted to correct the mistake which the profession generally makes, and that is as to the site for the incision of the aspirating needle. The doctor thinks the needle should be introduced low down; that the incision should be low.

Dr. A. Green.—I didn't say incision, I said the introducing of the aspirating needle.

Dr. Lutz.—I think that is just where he will make a mistake if he thinks it; if you remember the shape of the chest, it is barrel-shaped; about the fifth and sixth intercostal space is the place where the bung-hole is put in the barrel, and it is the place where every portion of fluid will flow out if your patient is on his side. When you aspirate with the patient in an erect position the

danger from paralysis of the heart from insufficiency of the heart's action might possibly occur; so that you aspirate with your patient lying on his side, and the bung-hole is the point at which the operation can be made and all the contents of the cavity remaining, that is between the fifth or sixth intercostal space. This is the favorite site, on account of the anatomical construction of the thorax for the removal of its contents.

[TO BE CONTINUED.]

MINNESOTA STATE MEDICAL SOCIETY.

The sixteenth annual meeting of the Minnesota State Medical Society was held at Stillwater, beginning June 19th. The society was called to order by President Dr. Lincoln, of Wabash. About 125 members present. A communication from the Nebraska State Medical Society was received to the following effect:

The committee on foreign correspondence shall consist of one duly accredited representative (a member of this society) for each State and Territorial medical society. They shall receive and review the transactions of the societies which they represent, and, through their chairman, the corresponding secretary shall present annually a report of the advances in medicine made by said societies. They shall also report such other matters as their societies may wish to communicate to the Nebraska State Medical Society. It shall be the duty of the representatives of any foreign society to communicate all advances in matters medical and governmental made by said society in the year just passsed, as well as all matters of whatever kind his society may wish to be brought to the notice of the Nebraska State Medical Society." In accordance with this implied request, Dr. Blackmer, of Albert Lee, was appointed the representative of Nebraska in the Minnesota Medical Society.

THE ADDRESS OF THE PRESIDENT.

Dr. Lincoln made an appeal to physicians to promulgate the doctrines of hygiene and preventive medicine. It discussed the physiological effects of alcohol, and dealt with inebriety as a disease, and with the relations of alcoholism to heredity. The members of the society were urged to study the problems involved in these subjects, and to record and preserve all facts within their experience which may aid in their solution.

AFTERNOON SESSION.

Dr. Hunter, of Minneapolis, offered a resolution to the effect that the chairmen of committees shall act as a committee whose duty it shall be to examine all papers to be presented at the annual meeting, and to decide which shall be read and discussed; and that the corresponding secretary shall furnish each member with a list of such papers at least a month before the meeting. The resolution was unanimously adopted.

Dr. Leasure, of St. Paul, offered a resolution which provided for a committee of three to report at the next meeting such measures as would facilitate and improve discussions and the working methods of the society.

The committee on practical medicine made its report.

Dr. Dunn, of Shakopee, was appointed a delegate to the International Medical Congress at Copenhagen. The report of the committee on medical education deprecated the multiplication of medical colleges, and urged the appointment of boards to examine all physicians without exception.

To a question as to what good had been accomplished by the State Board of Examiners, Dr. Millard replied that he had the addresses of two hundred and twenty persons practising medicine who have left the State since the enactment of the law, and that there are but twelve within its limits who have not yet complied with its requirements. A case is now pending in the Supreme Court to test the constitutionality of the law. Dr. Millard said that the Board will protect the profession and endeavor to raise the standard of professional excellence, and asked for support and countenance.

Dr. Hunter presented the report of the committee on surgery, which related chiefly to visceral surgery, and to the management of wounds. Dr. Staple having advocated the treatment of hip-joint disease by leather splints, Dr. Bauer, of St. Louis, addressed the society upon the subject of that disease; its pathology and treatment. He denied emphatically its diathetic nature or origin, affirming that its cause in almost every case is traumatism. He urged absolute rest, immobility, and, when indicated, tenotomy, as the only rational treatment; extension and counterextension being wholly useless and uncalled for. Hernia and herniotomy were discussed, and operations for radical cure described.

Dr. Ayres, of Omaha, delegate from the Nebraska society, reported a case of wound of the internal carotid by broken glass. The accident occurred in the street, where Dr. Ayres tied the common carotid, the patient lying on the sidewalk. Recovery ensued, with some facial paralysis.

The society was entertained at the Sawyer House in the evening, a banquet being tendered by the Washington County Medical Society.

June 20th.—Dr. Clark, of Stillwater, presented the report for the committee on obstetrics, which was extensively discussed by the society.

Various committees presented reports, which were read by title. That of the gynecological committee dealt with cleanliness, the calibre of the urethra, trachellorrhaphy, and tubercle of the peritoneum.

Dr. Owens offered a resolution indorsing the State Examining Board, and pledging the support of the society, which was unanimously adopted.

A request from the Women's Christian Temperance Union, that a committee be appointed to investigate the subject of alcoholism and heredity, was placed on file.

AFTERNOON SESSION.

Dr. Fulton, of St. Paul, chairman of the committee on ophthalmology, read a paper upon functional affections of the eye. Dr. Abbott, of Minneapolis, urged the importance of the general practitioner qualifying himself to recognize and treat certain diseases of the eye (e. g., iritis), the diagnosis of which is often made only by a specialist, and too late for successful treatment.

THE ELECTION OF OFFICERS

being in order, resulted as follows:

President—Dr. J. B. McGaughey, of Winona.

Vice-Presidents—Drs. F. A. Dunsmoor, of Minneapolis; W. H. Pratt, of Stillwater; and C. A. Wheaton, of St. Paul.

Treasurer—Dr. S. B. Sheardown, of Stockton.
Recording Secretary—Dr. C. H. Boardman, of St. Paul.
Corresponding Secretary—Dr. A. F. Ritchie, of Duluth.
Censors (for three years)—Drs. J. C. Rhodes and V. Smith.
After the usual complimentary resolutions, the society adjourned to meet in St. Paul on the third Thursday in June, 1885.

AMERICAN PUBLIC HEALTH ASSOCIATION.

At a meeting of the executive committee, held in Washington, May 7th, it was decided to hold the twelfth annual session of the association on Tuesday, Wednesday, Thursday and Friday, October 14-17, 1884, at St. Louis, and to present the following topics for consideration:

1. Hygiene of the Habitations of the Poor. 2. Hygiene of Occupations. 3. School Hygiene. 4. Adulteration of Food. 5. Water Pollution. 6. Disposal of Sewage by Irrigation or Chemical Action. 7. The Observable Effect upon the Public Health of Official Sanitary Supervision. 8. The Work of Municipal and State Boards of Health.

Persons intending to present papers on any of these subjects are requested to notify the secretary at once, and to furnish him with a condensed abstract of the same not later than September 1st. Members desiring to participate in the discussion of these papers are also requested to inform the secretary.

It is requested that the complete papers shall be in the hands of the secretary at least three days prior to the meeting, as all papers must be examined by a committee before being read. They may be sent by mail or express to the secretary at his office prior to the 1st of October, after which date to his address at St. Louis, Mo., care of Dr. Jos. Speigelhalter.

Active and associate members have equal rights and privileges in the presentation and discussion of papers. Extensive preparations are now under way for making this the largest meeting that the association has ever held, and the committee urge the attendance and co-operation of persons in all trades and professions interested in the advancement of the public health and general sanitary science. A circular, giving full and concise information regarding local matters, programme, transportation, etc., will be issued in due season before the meeting.

All inquiries of a local character should be addressed to Dr. Jos. Speigelhalter, chairman of committee of arrangements, St. Louis, Mo.

EXTRACT FROM CONSTITUTION. ART. III.

The members of this association shall be known as active and associate. The executive committee shall determine for which class a candidate shall be proposed. The active members shall constitute the permanent body of the association, subject to the provisions of the Constitution as to continuance in membership. They shall be selected with special reference to their acknowledged interest in or devotion to sanitary studies and allied sciences, and to the practical application of the same. The associate members shall be elected with special reference to their general interest only in sanitary science, and shall have all the privileges and publications of the association, but shall not be entitled to vote. All members shall be elected as follows:

Each candidate for admission shall first be proposed to the executive committee in writing (which may be done at any time) with a statement of the business or profession, and special qualifications of the person so proposed; on recommendations of a majority of the committee, and on receiving a vote of two-thirds of the members present at a regular meeting, the candidate shall be declared duly elected a member of the association. The annual fee of membership in either class shall be five dollars.

It is hoped that every member of this association will endeavor to forward its grand objects by taking a personal interest in its humane and philanthropic work, and by securing and forwarding to the secretary the names of worthy men and women, in whatever profession or trade, for membership. Even those who cannot attend the annual meetings will be more than compensated in receiving the large, valuable, and beautiful volume annually published by the association.

During the session of the association the REVIEW will publish a daily edition, giving full reports of all the proceedings.

DISTRICT MEDICAL SOCIETY OF NORTHWEST MISSOURI, JULY 10TH.

Dr. D. I. Chistopher in the chair, and Dr. F. C. Hoyt, secretary. Minutes of the last meeting and the calling of the roll postponed. Executive committee reported order of business.

AFTERNOON SESSION.

The minutes of the last meeting were read and approved. The following members answered to their names: Drs. D. I. Chistopher, J. M. Richmond, W. E. Lewis, P. J. Kirschner, A. Goslin, T. E. Potter, D. A. Sargent, T. W. Laney, H. Christopher, T. H. Doyle, J. A. French, C. L. Woodson. F. C. Hoyt, W. H. Bryant, and visiting were Drs. J. Gieger, P. I. Leonard, Chas. OFarrel and W. Wallace, of St. Joseph, and Dr. B. F. Goodson, of Hopkins. Drs. Goodson, Leonard and O'Farrel made application for membership.

The three essayists being absent Dr. Sargent was allowed to present a case which he brought, of goitre of long standing, upon which he desired the opinion of the Society. Discussed by Drs. Goslin, Potter and Geiger.

Dr. Bryant then read a paper upon the management of the Puerperal State." The paper was discussed by Drs. Woodson, Potter, Richmond and Doyle.

On motion, the regular session for discussion was postponed until the evening session.

EVENING SESSION.

Dr. G. C. Catlett read a report from the American Medical Association which was on motion received.

Dr. J. H. Duncan, of Kansas City, read a paper upon "Diseases of the Skin," which was on motion received. The paper was discussed by Drs. Strinfellow, Catlett and others.

The following gentlemen were placed on the programme as essayists for the next meeting: Drs. F. E. Bullock, J. T. Butler, A. P. Busey,

G. C. Catlett, W. W. Carter and G. W. E. Chamberlain.

On motion the Society adjourned until the next regular meeting.

CORRESPONDENCE.

LONDON LETTER.

LONDON, ENG., July 6, 1884,

To the Editor of the Review:—In compliance with your request to write some short correspondence for your journal, I take pleasure in sending you this first communication, a general outline only to begin with, details of which will soon follow.

I am in the great city of London, since 25th inst. I met at my hotel, Dr. Grant, (Bey) of Cairo, Egypt, a jolly companion; we begin our tramp early in the morning and end late at night. First, we visited Sir T. Spencer Wells, whose personal acquaintance I have been desirous to make for a long time, and was at last gratified to meet the venerable and esteemed old gentleman. I visited the Samaritan Hospital with him, where he introduced me to the attending surgeons. In the afternoon we drove out to his summer village, where we met Lady Wells, and were entertained with a garden party. Last Saturday, we saw an ovariotomy performed by Mr. G. G. Bantock, at the Samaritan.

We next called upon Sir William McCormac, who will be remembered by many in St. Louis. His admirable wife, her Ladyship, invited us to her evening party. We, of course, accepted and attended. Sir William speaks in the highest terms of his friends in America, and Lady W. McC., made many inquiries after St. Louis ladies. We next visited the Royal Orthopædic Hospital, where Mr. H. F. Bocker met us and showed us his wards containing about forty patients, and explained to us his mode of treating club-foot, etc., etc., in his most admirable manner. It takes up a great deal of time to visit the hospitals here, as they are so scattered, and it is very difficult to meet the attending surgeons, outside of their regular hours; therefore the medical advantages are not very available for a foreign doctor who is here only upon a short visit.

Sunday, we as a good Christian, take a rest.

Monday, we visited the St. Thomas' Hospital. This is certainly the handsomest hospital in the world, and one may well be proud to be connected with this institution, where once Sir Astley Cooper, reigned. At two o'clock, we saw Sir William McCormac perform an ovariotomy. Here, I met Dr. F. Hasmimote, Director of the Military Hospital, at Tokio, Japan, who, some nine years ago, studied in Vienna. He speaks German and French well, and will visit America very soon and call upon you. At 4 o'clock, the same evening, I saw Mr. J. K. Thornton perform an ovariotomy at the Samaritan.

The complaints sometimes heard of American physicians having received at the hands of their English brethren, but indifferent treatment, I think is without good ground; at any rate, I have been received everwhere with great courtesy and respect, and all the foreigners I have met at the clinics, and at the hospitals, were always kindly treated by the professors as well as by the attending and house surgeons.

In the evening, I went to the House of Parliament to hear the debate on the Egyptian question. It was postponed, however. Having an introduction to T. P. O'Connor, M. P., through the kindness of our friend Dr. Thos. O'Reilly of our city. I was honored with a seat, and enjoyed the evening very well.

This ends our work up to date. To-morrow's doings I will tell you after it is done. On Wednesday I shall start for Paris. I remain very truly yours, EDWARD BORCK.

EXTEMPORANEOUS AMBULANCE CONTRIVANCE IN THE MINING REGIONS.

Eds. Review:—The matter of transportation of the wounded over rough districts, is often of great importance to both patient and physician and is one on which little or nothing is said in text-books and nothing by lecturers. The success with which this patient was moved is my excuse for reporting the case.

March 27, 1884. Wm. Robbins, æt. 39, in good health, occupation farmer, was kicked, at noon, by a horse weighing 1,400 lbs. shod with four pound shoes and heel cork one and a half inches long, struck the right leg three inches above the knee joint, breaking the femur at that point. The cork struck on the outer aspect of the thigh, cutting a pretty smooth gash about one inch long down to the bone. Dr. Hill of the Eureka Mine, was sent for but was too ill to attend. I was then sent for and arrived at the house where the wounded man lay, at 8 A. M., the following day. The distance from my own home, and the almost impassible nature of the country determined me in the resolution to move him to his own home which was five miles from mine. There was about seven miles of a succession of sharp hills on which lay about two feet of snow, then came three miles of swamp land, crossed by numerous creeks.

No attempt had been made to put the limb in decent position and it was very much distorted. I had a fracture box made of thin pine boards, the inner side piece reaching to the perineum, the outer to the top of the ileum, the lower end was closed by a foot piece through which were four half inch holes. Two holes were bored in the upper end of the outer side piece.

Having my preporations all made I gave chloroform enough to produce full relaxation, then as rapidly as possible I extended the limb, adjusting the fragments as nearly as possible, put the limb in the box. I had spread over the bottom of the box about one inch of wheat bran and then laid over the box a piece of old cotton cloth. Now placing the limb in the box, I secured the foot to the foot piece by a "bandage hitch" of my own devising adjusted and secured a perineal band and then firmly packed the whole limb with the wheat bran. Some compresses were placed along on the upper surface, and these and the sides of the box were firmly bound together by strips of bandage passed outside of the whole. My patient was now placed on a long hand-sled that had been knocked together, and with four men on drag ropes ahead and two behind, to prevent the sled sliding sideways, we started out. The seven miles over the snow was made with hardly a complaint from my patient. The hand-sled was placed on a long plank secured to both sides and a stout pair of horses exchanged for our men. We crossed swamp

and creeks without accident or trouble, and at 5 P. M. I had the pleasure of seeing Mr. Robins safe in his own home and bed, though pretty tired. I did not disturb the broken leg that evening, but the following morning again gave him chloroform, took it out of the box and put it in the apparatus of Dr. Gordon Buck, elevating the foot of the bed for counter extension, and placing three narrow sand bags along the leg for greater steadiness.

The wound was treated as an open wound, without antiseptics. On the twenty-eighth day, after the accident I removed the apparatus and applied a glue and oxide of zinc dressing and got my patient upon crutches. He has made excellent progress all the time and is now using the leg some little. There is absolutely no shortening and no deformity. I do not know but what I committed almost the unpardonable sin by not using some of the bacteria destroyers, but I can't help it. FRED. HUTCHINS, M. D.

Loyalton, Col., July 15, 1884.

"NOTHING NEW UNDER THE SUN."

ST. LOUIS, MO., July 15, 1884.

Editor Weekly Medical Review:

I notice in your issue of July 5th, in an article on various uses of condoms, that the writer refers to an ingenious use of said "weapons," suggested by an English army surgeon; namely, to arrest hemorrhage from the nose.

The late Dr. J. J. McDowell, lecturing in his capacity of professor of anatomy at the St. Louis Medical College, whenever he spoke of the comparative anatomy of the vermiform appendix of the cæcum, roguishly drew from his pocket-book a condom, and inflated it before the class with his breath, claiming that it was a sheep's vermiform appendix; and he accounted for its constant presence with him by explaining that it was a splendid thing to stop nose-bleed.

Also, the late Dr. J. T. Hodgen, whenever he spoke of nasal hemorrhage, mentioned this among others as a very practical way of arresting the hemorrhage, and in mentioning it, often referred to it as "Professor McDowell's method."

Whether this method was original with either of the above teachers, I do not know, but many of their students for years back can and will corroborate the statements. F. P. FRY, M. D.

BOOK NOTICES.

DRUGS AND MEDICINES OF NORTH AMERICA.—The July number contains a thorough investigation of the drug "Hepatica" or liver leaf. In addition to a full botanical, and medical description of the drug the issue contains a full-sized plate of the plant and cuts illustrating the shapes of the different leaves of commerce, and a map showing the distribution of our two native species. Of late years this drug has been extensively consumed in the preparation of certain preparatory medicines. From statistics collected by Messrs. Lloyd, it appears that last year over 340,000 pounds were consumed, of which amount over 300,000 pounds were imported from Europe. Four years ago the entire consumption did not reach 10,000 pounds. The medical properties of the Hepatica are unimportant, and it is but little used by the profession.

Auscultation, Percussion and Urinalysis: An Epitome of the Physical Signs of the Diseases of the Heart, Lung, Liver and Kidneys. Edited by C. Henri Leonard, M. A., M. D., Professor of the Medical and Surgical Diseases of Women, and Clinical Gynecology. Michigan College of Medicine. Fully illustrated; Cloth, 16mo. 166 pages, post-paid, $1. Detroit, Mich., 1884; The Illustrated Medical Journal Co., Publishers.

This is a handy little book, and will be found useful for quick reference. It can be carried in the pocket, and used to refresh the mind, or to refer to when larger works are not at hand. Its practical nature will, no doubt, command for it a large sale.

Bichloride of Methylene used in a Junker Inhaler; by Jno. H. McIntyre, A. M., M. D.; Prof. of Surgical Diseases of Women in the St. Louis College of Practitioners, 1883.

In this reprint Dr. McIntyre gives a brief historical sketch of the anæsthetic, and, at more length, relates his own experience with it as administered with a Junker Inhaler. He is most favorably impressed with its advantages over other anæsthetics. The doctor has continued his investigation, and will, ere long, publish the results.

Hooper's Physician's Vade Mecum: A Manual of Principles and Practice of Physic; with an outline of General Pathology, Therapeutics and Hygiene. Tenth edition; Revised by Wm. Augustus Guy, M. R., Cantab, F. R. S., Fellow of the Royal College of Physicians, etc., and John Harley, M. D., Lond., F. L. S., Fellow of the Royal College of Physicians, etc. Vol. 1. New York: Wm. Wood & Co.

This book is familiar to the profession, and needs no extended notice. It is a thorough, practical work, and whilst it brings in a small compass the information essential for bedside practice, it still has not the fault common to many similar works, of being too much condensed to be comprehensive. The various subjects considered have been brought down to the present time, and all recent discoveries and investigations taken advantage of. Numerous illustrations are scattered throughout the book, which, is in all respects, an excellent one of its kind, and will prove of undoubted value to the practitioner and student.

In the International Health Exhibition, London, one department of the Library is devoted to the exhibition of the various devices resorted to for the cultivation and demonstration of the various minute organisms which infect the human body.

The French Academy of Medicine does not as yet appear quite unanimous in regard to the cholera at Toulon and Marseilles, although the majority of the members do not regard it as purely Asiatic or of Oriental origin.

ITEMS.

Prof. Koch is forty-one years old.

1,055,764 ounces of quinine were imported into this country in 1883.

The July Amer. Jour. Med. Sciences contains a beautiful steel engraving of the late Prof. Samuel D. Gross.

A case of transfusion rendered necessary by the extraction of a tooth is abstracted in the Boston Medical and Surgical Journal.

Koch has investigated the cholera at Toulon, and declares it to be genuine Asiatic; he, also, declares that it is bound to spread all over Europe.

To attempt to draw the milk, says Dr. Parvin, in a case of phlegmonous inflammation of the breast, is evil, and only evil, and that continually.

Dr. Parvin reports scarlatina in a woman soon after labor; he believes the puerperal state increases the susceptibility to the germs of the disease.

Dr. H. Tuke, the eminent English Alienist will attend the British Science Association at Montreal in August, and will afterwards visit the United States.

The Third Congress of Internal Medicine held at Berlin last April had quite a strong and animated discussion on the role of bacteria in the production of pneumonia,

A bride during the marriage ceremony sneezed and dislocated her jaw; she could not say the all-important, "I do," until a surgeon had been called in to reduce the dislocation.

M. Millet lately perforated a hydatid cyst of the prostate, in which no diagnosis could be made. The only fact that could be ascertained was an enlargement of the prostate due to a cyst.

M. Le Fort presented to the Surgical Society of Paris a patient having a congenital tumor arising from the root of the nose, falling on both cheeks and beating isochronously with the pulse.

Sir Henry Thompson has presented his valuable collection of calculi from 812 operations resulting from lithotomy and lithotrity to the Royal College of Surgeons, London, England.

The Edinburgh branch of the British Medical Association has decided not to admit homeopaths, but concluded that it would be unwise to attempt to expel those who are already members.

Dr. W. W. Watkins, we learn, will leave the city on Saturday to pass a few months at West Plains, Mo., for the benefit of his health. He has intimated that if the location is agreeable he may remain there permanently, a circumstance which all his friends here will deeply regret. The doctor leaves behind him a host of warm friends in St. Louis, and all of the professional brethren with whom he has come in contact here will regret his departure, and hope that it may only be temporary. We wish the doctor success and a pleasant time.

A petition from the Foreign Graduates' Association of Great Britain, signed by Dr. H. J. Hardwicke, President, has been presented to the House of Commons by the Right Hon. A. J. Mundella, in favor of admitting to the Register all foreign degrees obtained, after examination and before the passing of the new Medical Bill, by duly registered practitioners; and also protesting against any attempt being made to modify Clause 69 in any sense prejudicial to holders of foreign degrees.

H. F. James, V. S., of St. Louis, writes to the Jour. of Compar. Med. & Surg., that the call issued for the formation of a State Society in Missouri is not countenanced by the regular graduates, the signers being all non-graduates, and unworthy of recognition.

All desiring to contribute to the endowment fund for the proposed Gross Professorship of Pathological Anatomy can forward money to Dr. R. G. Dunglison, Box 1.227, Philadelphia, Pa. The object is one which the profession should take pride in assisting to carry out.

Dr. Létiévant, surgeon-in-chief of the Hôtel Dieu of Lyons, lately died of apoplexy. He was the first to introduce the Lister dressing in Lyons and fully demonstrated the value of this method. To him also belongs the credit of having originated resection of the ribs for empyema although he never was given the credit of it.

DEATHS IN ST. LOUIS FOR THE WEEK ENDING JULY 19, 1884.

Small-pox		Convulsions and trismus	11
Measles		Heat stroke	
Scarlatina	2	Apoplexy	3
Diphtheria	4	Other diseases of the brain and nervous system	12
Membranous croup		Cirrhosis of liver and hepatitis	8
Whooping cough		Enteritis, gastro-enteritis, peritonitis and gastritis	7
Typhoid fever	2	Bright's disease and nephritis	3
Cerebro-spinal fever	2	Other diseases urinary organs	2
Remittent, Intermittent, Typho-malarial, congestive and simple continued fevers	4	Diseases generative organs	1
Puerperal fever	1	Diseases of the locomotory organs	
Diarrhœl Diseases.		Diseases of the integument	
Under 5 years	44	Accidents of pregnancy and childbirth	2
Other ages	3	Congenital debility, malformation, etc	9
Erysipelas		Senility	7
Pyæmia and Septicæmia.		Surgical operations	
Syphilis	1	Deaths by suicide	
Inanition, want of breast milk, etc	5	Deaths by homicide	1
Alcoholism	2	Deaths by accident	10
Other zymotic diseases	3	Execution by warrant of law	
Rheumatism and gout		Unknown	
Cancer and malignant tumor	5	Total deaths from all Causes	192
Phthisis and tuberculosis Pulmon	12	Total Zymotic Diseases	73
Marasmus—Tabes mesenterica and scrofula	8	Total Constitutional Diseases	27
Hydrocephalus, tubercular meningitis, etc	2	Total Local Diseases	63
Other constitutional diseases		Total Developmental Diseases	18
Bronchitis	2	Deaths by Violence	11
Pneumonia	5	Unknown	
Other diseases respiratory organs	4		
Diseases of the circulatory system	4		
Meningitis and encephalitis	1		

GIB. W. CARSON, M. D.,
Clerk of Health Commissioner and Board of Health.

THE WEEKLY MEDICAL REVIEW.

VOL. X. NO. 5. CHICAGO AND ST. LOUIS, AUGUST 2, 1884. TERMS: $3 A YEAR.

HYSTERICAL OR NERVOUS BREATHING forms the subject of an excellent address from Mr. W. Martin Coates, F. R. C. S., England, and published in the British Med. of July 5, 1884. To illustrate his idea he adduces four cases. The first was a patient who had been told by an eminent practitioner that the upper part of the left lung was affected. On examination, the author found nothing peculiar about the condition excepting very quick and almost imperceptible breathing. She could not be induced to take a long breath, which the author regards as a peculiarity of such cases; On being requested to count twenty without drawing breath, she did so and then on inspiration the lung expanded freely,the air entering into every part. The second case was one to which the author was called in consultation. The patient was a young man suffering from severe disappointment associated with a severe cold and a slight cough. The peculiar feature which elicited the consultation was the irregular and shallow breathing. After necessitating the patient to count twenty rapidly the practitioner requiring the consultation was convinced of the nervous nature of the difficulty. The third case was one where there was slight dullness on percussion under the clavicle. There were however, no râles, no bronchophony, or bronchial breathing, nor other physical signs of disease. There was the same rapid breathing which was manifest in the other cases, but the test of counting twenty rapidly cleared up the doubt which existed in the author's mind, as air then entered freely into every part of the lungs. On getting better she went to London and was counseled by her friends to enter a hospital, where, according to the patient's account she was examined by three physicians and sent home to die of phthisis. On re-examining the patient the author was himself convinced, and convinced the patient she had no pulmonary disease. The fourth case refers to a simulated hypertrophy of the heart and scarcely belongs to the same category, the detection of simulation being determined from the fact that the pulse did not correspond in its peculiarities with the action of the heart. In all of these cases except the fourth there was cough. In generalizing on these cases the author thus expresses himself:

"I do not wish you to understand that these cases of nervous breathing are frequent. They are not. I see every now and then one. The slightest cases seem often to give rise to fears of phthisis, if there be cough. The fact of several medical practitioners being alarmed shows that, unless you have the key, they are not easy to read. The characteristic features of most of these (I, of course, in this definition bar Case IV) are cough, with or without blood-spitting, usually of a venous character, with very rapid and very shallow breathing, and absence, as a rule, of physical signs of disease. I say, as a rule, as in Case III there was, you will remember, slight dullness at the right apex for a short time. It is fair to infer that a similar dullness may have existed and passed away before I saw them; if so, it would add to the difficulty of diagnosis. It is possible that that by this restrained and limited breathing, temporary congestion might be produced? When the patients cannot be induced to take a long inspiration, the making them count twenty without breathing enforces a long inspiration, re-establishes normal vesicular respiration, and gives the practitioner the test desired.

I may here remark that the cough was not in

either of these cases, the convulsive loud cough so usual in hysteria. The fact that several well educated medical gentlemen had been led to fear incipient phthisis by this shallow rapid rapid breathing, accompanied by a cough of probably nervous character, is proof sufficient that it is very misleading, and forms the best excuse for bringing the subject before this meeting.

TREATMENT OF RETENTION OF URINE FROM PROSTATIC ENLARGEMENT.–Sir Henry Thompson in his lectures before the Royal College of Surgeons, London, as published in the British Medical in discussing operative treatment, says:

"First, there is no ground for believing that any section or resection, applied to cases of the enlarged prostate ordinarily met with, can be resorted to with fair chances of success for restoring the lost function of micturition to the subject of it. On the other hand, any incisions or resections in a considerably hypertrophied prostrate, which are adequate for the establishment of a permanently patent passage, must be regarded as extremely dangerous.

"Secondly, whether the obstruction be considerable, or whether it consist only of the little outgrowth (a small neoplasm situated just at the neck of the bladder) which has just been described, when absolute retention has existed for several years, it is highly improbable that any operation wiil restore the natural power, and enable patient to dispense with the habitual use of the catheter."

Thirdly, there is reason to believe that, in respect of the little outgrowth just named, should it be dealt with during the early stage of its existence, a division of the tissues may overcome the obstruction, and restore wholly or partially the function of the bladder. But Professor Bottini divides such an obstruction, not with the knife, but by means of the electric cautery, considering the latter a safer and more efficient agent than the cutting instruments which he and others formerly employed for the purpose."

After further discussing the various conditions associated with retention of urine, he continues:

"It follows from all the preceding considerations, that our chief reliance for successful treatment in all the forms of impaired vesical function which give rise to retained urine, is the habitual use of the catheter; and I must add that the remedy is not only most valu ble, but that it is, for the most part, indispensable, and the sooner it is employed in the great majority of cases, the greater is the chance of ultimate recovery, in addition to the immediate relief which the instrument affords. It is the frequent failure to perceive this fact, especially in relation with the less obvious forms of incompetence, which has led, as I said at the ontset, to my choice of the subject. The failure is due not only to the oversight of the pathological condition which demands mechanical aid, but to the strong and very natural disinclination which so widely exists to the employment of instruments—I had almost added to the prejudice which is entertained against them—and I fear that this also must be admitted. I cannot resist the temptation to cite in support of this statement an illustration which occurs while writing these very lines, and with an opportuneness which is remarkable, being in itself so completely appropriate to the subject. A gentleman from abroad, aged 64, called on me yesterday for the first time, to consult me after two years of continuous troubles from frequency of micturition, mucopurulent urine, the inevitable "catarrh," as it is termed, for which during that time he had been treated, notwithstanding which he had been steadily getting worse throughout. My first inquiry, after hearing his story, was, "Has a catheter ever been used?" The reply was, "No, indeed; my old friend and adviser (giving the name of a well-known foreign physician) has always said, 'Whatever you do never permit a catheter to be used; it is a machine which will create for you a worse malady than that which you already have.'" Such is a type of the answers I am accustomed to receive from foreign patients, and occasionally from my own countrymen.

The first sentiment which arises in my mind is astonishment that so grave a responsibility should be thus readily assumed by him who gives this counsel. Nevertheless, the frequency and the confidence with which it is tendered are very great, and I am bound to say that it has, within my personal knowledge been the cause of many a premature and painful death; for when such advice is followed, the almost necessary, indeed the most common, result is that the patient, after much suffering and long endurance, becomes at last affected with complete retention of urine, for which a catheter must now be passed for the temporary mitigation of his tortures, and to prevent immediate or impending death. But the catheter is at this crisis not employed in any sense for the purpose of treating the original malady, as at first advised and for which relief has come too late, and ere long the patient sinks. The slender consolation at least remains, that at all events his last few days were rendered tranquil and comparatively painless by regular instrumental relief. Nevertheless, one almost invariably hears that the original adviser vaunts his foresight, and cites the catastrophe as a fresh warning against the catheter, which—as he asserts, almost indeed with an air of triumph, "was so soon followed by a fatal result."

After insisting on the necessary gentleness and tact to be employed in the use of the catheter and forbidding the complete removal of all the urine from a bladder that has been for a long time distended, he thus concludes:

"When a patient, whose vesical functions have been long impaired, requires artificial relief, the best chance of saving him is to enjoin at once the recumbent position in a warm and equable temperature, usually in his bedroom, in order that the skin may act freely, and that no locomotion may be possible. The catheter should be used skillfully and with great gentleness; not at first emptying the bladder completely, but always removing the instrument when pain is felt, as it often is before that condition is reached; and it must be applied again as soon as relief is manifestly required. I can scarcely overestimate the value of these precautions, nor advise too strongly the abstinence from movement and exposure of all kinds for a period of a few weeks in these particular cases. We may thus sometimes succeed in prolonging life, even at a very advanced term, and at the same time avoid the groundless but injurious opposition which is often manifested, as we have seen, to the use of the catheter; the want of which at an early period in the patient's history, and not the late recourse to it, has been the real cause of death in almost every one of the fatal cases described."

Scarifications in Keloid are practiced by Vidal in preference to the method hitherto employed, such as resolvent ointments, plasters which soften, emplastrum vigo, painting with tincture of iodine, mineral douches and other means which have not proven of great advantage. He employs transverse scarifications, either in the form of lozenges or quadrangles all parallel and about two millimetres apart, projecting a half centimetre beyond the edge of the keloid. In a case he treated, three sittings took place, eight days apart. The pains ceased, the keloid flattened and, in a short time, cured.

Medical English.—Our esteemed contemporary, the New York Medical Record has, in the issue of July 19, 1884, favored the profession with a lesson on its shortcomings relative to the proper expression of thought. We perfectly agree with our contemporary on the necessity of lessons on such a subject, but we decidedly object to the general teaching of the lesson given, in so far as it refers to the use of a great number of the words which according to the Record should be substituted for those said to be used. We are told that we should use medicinal dose, not medical dose; dilatation, not dilation; ligatured, not ligated; diagnosticated, not diagnosed; teaspoonfuls, not teaspoonsful and officinal, not official. We are further told that "*post-mortem*

should never be unaccompanied by the *examination.*"

The subject of the expression of thought by well chosen words and phrases cannot be too often entertained by those who endeavor to communicate their ideas to others, but to entertain the idea that we are constantly to use the exact words in full such as they are found in the dictionary is a mistake which if perpetrated involves the cessation of all progress. The fact is that the dictionaries are compiled necessarily from the customs of the people. There was a time when no dictionary existed, and up to that time it was merely the usages of the people which determined the peculiarities of an individual word. The introduction of a dictionary, however, by no means abrogates the principle thus primitively enjoyed. It is only when the language is numbered among the dead languages that the principle ceases to exist, and it is the duty of every one to endeavor to give to such words and phrases as are still in process of modification such a modification as shall contribute to the terseness and vigor of the language.

If we take up the words we have quoted individually we should have to admit that "medicinal dose" has the weight of authority on its side; but although we claim that the expression therapeutical dose is to be preferred, yet if we discuss the question of propriety of using one of the two words mentioned we certainly maintain that any one in whose judgment "medical dose" is equally expressive and more terse, is at liberty to keep the expression before the profession as a candidate for acceptance. Exactly the same line of argument can be used relative to the words "officinal" and "official." As to why we should be instructed to use dilatation instead of dilation we fail to comprehend. The general form of the verb is to dilate, and following the general principle which underlies the formation of the substantive used to express the abstract idea associated with the verb we certainly ought to use dilation and not dilatation. From act we get action, from prevent, prevention, castrate gives castration. On what principle we should introduce the extra syllable we are not told. We do not think it worth while to discuss the other claims, namely that we should use diagnosticated and not diagnosed, or ligatured and not ligated. It requires something more than the dictation of the Medical Record to induce men who are accustomed to think for themselves to use such cumbrous words when we have shorter ones equally expressive, more terse and quicker said and written.

We are further instructed by our metropolitan journal never to use the words post-mortem without the additional "examination." This statement is simply too absurd for serious discussion among physicians. It may do for a routine pedagogue to prate about. Whatever the individual Latin words—post-mortem may—mean, they have by common consent among physicians come to mean the examination of a corpse with the intent of finding out the cause of death; consequently we claim the addition of examination is not only not necessary but even redundant. We had forgotten the "teaspoonsful" or "teaspoonfuls," but we should unquestionably take the opposite ground from the author on the same principle that we should say aides-de-camp and not aide-de-camps, or fathers-in-law and not father-in-laws.

It would only be an act of the most reasonable tolerance to suppose some people in using an abbreviated form of a word or expression do so intentionally and not from ignorance.

Consumption and Age.—Dr. Edgar Holden has published in the Med. Record of July 12, '84, the result of statistics, which, by the way, coincide in the main with the investigations of the German Board of Health, that the danger of dying of consumption after the age of twenty-one practically increases as age advances. In other words, relatively more persons die of consumption between the ages of 65 and 75 than at any period after twenty-one.

The total number of medical students registered in Great Britain during the nineteen years from 1865 to 1883 has been 26,998; of this number England has furnished 48.2, Scotland 28.1, and Ireland 23.7 per cent.

When the Le Moyne Crematory was established at Washington, Pa., it was intended only for the use of families resident in the county who desired to dispose of their deceased relatives by the process of cremation. Permission was, however, granted to some few other families non-resident in the county. The applications have, however, been so numerous that it has been decided by the trustees to confine the use of the crematory to the limits designed by its founder Dr. F. Julius LeMoyne. This rule takes effect after the first of August, 1884.

Marriage in Relation to Physical and Mental Development. — We publish the following circular in order to facilitate the inquiry undertaken. We must, however, confess that the committe have in our opinion not pursued the wisest course in their questions. Persons answering such questions will be likely to give opinions and not facts. Now opinions on such a subject are worth nothing as positive contributions to advancement in any investigation, whilst facts, associated with names, dates and observers, are of unspeakable value. We wish, therefore, that the investigators had asked for facts relating to the intermarriage of persons related in such a way as the committee indicate. Moreover the subject they have undertaken even in the first question is a very wide one and one which has been very ably investigated and really embraces a part of the other questions. Consanguinous congenital mutes may intermarry. Moreover the definition of what is meant by "congenital mutes" although to some it may seem to explain itself might with advantage be defined. In fact, when we reflect on the term we find it very difficult indeed to define. As a matter of fact all children are born mutes in so far as they are not able to speak, but what the investigators desire to ascertain evidently is something about those who are mutes owing to congenital deafness. Here again congenital deafness requires definition, as it is very difficult to determine between a deafness existing at the time of birth and that which has been acquired during the first few years of infancy. These remarks will not appear hypercritical to those who are accustomed to investigate. Clear definitions are indispensable.

Pennsylvania Institution for the Deaf and Dumb.

Philadelphia, July, 1884.

Dear Sir: The Directors of the Pennsylvania Institution for the Deaf and Dumb have instructed the undersigned to use their best efforts to obtain information on the following points:

1. Whether the intermarriage of relatives produces any disadvantages, physical or mental, on their posterity.

2. Whether the intermarriage of congenital mutes produces any disadvantage, physical or mental, on their offspring.

3. Whether the intermarriage of semi-mutes produces any disadvantage, physical or mental, on their offspring.

4. Whether the intermarriage of congenital or semi-mutes with speaking and hearing persons produces any disadvantage on their offspring.

As the information which is sought is considered important, we earnestly desire your co-operation to obtain it, and will be glad to receive a reply from you at as early a day as will suit your convenience.

If you are acquainted with any gentlemen who would be likely to assist us in our inquiry, do us the favor to furnish us with their address.

Be pleased to direct your communication to the Chairman of the Committee, No. 3, Athenæum Building.

James J. Barclay,
T. Hewson Beche,
Rowland Evans,
George Gilpin.

A Local Conference of the older physicians of Chicago took place on Friday evening, July 25, to discuss the measures desirable to adopt on the approach of cholera. Dr. DeWolf detailed what had been done toward putting the city into a sanitary condition. He further said he had divided the city into

forty sections, and he proposed to place each section in charge of a medical officer, in case the epidemic made its appearance, but the question whether the hospitals at present existing would be at the disposal of the health officer for such purposes, or whether it would be better to build temporary hospitals, was one on which he sought advice. There was not much of any special value elicited in the remarks which followed. The general opinion may be stated as in favor of treating the patients as far as possible where they happen to fall sick, but that temporary hospitals would be needed for those who have no homes. Calm and quietude were regarded as of great importance. No resolutions were adopted as expressing the sentiments of those present.

THE DANGER OF MORPHIA IN CARDIAC DISEASES was referred to in these columns some weeks since. As it is a subject of decided importance, we bring before our readers some further literature bearing upon the subject. The New York Medical Record of June 28th quotes Dr. Runeburg's fatal case which formed the text of our remarks, and makes the following comments:

From time to time we are shocked to hear of the sudden death of a person, soon or immediately after the hypodermic use of morphine, given probably for the relief of severe pain. Subsequent autopsical examinations have then repeatedly shown the existence of grave organic lesions of some important organ or system, which was either overlooked by the physician in charge, or, having been clearly recognized, was not held to contra-indicate the hypodermic use of morphine. Accidents of this kind would seem to be particularly frequent where renal disease is present. In chronic heart disease a disastrous result appears to be likewise a quite possible consequence of employing so potent and rapidly acting a drug.

Here the Record gives an abstract of Dr. Runeberg's case and continues:

Although such a condition rendered the patient liable to sudden death at any moment, yet Dr. Runeberg wisely suggests that the lethal issue was at least hastened by the morphine administered. Dr. Israel has recorded a somewhat similar experience, where death followed the injection of only one-eighth of a grain. In this case the patient suffered from cardiac insufficiency, associated with renal disease. These and numerous other instances of the same kind, recorded and unrecorded, are so striking as to render the theory of a coincidence, to say the least, improbable. And it therefore behooves us to exercise the utmost caution in the administration of morphine to patients suffering from grave cardiac lesions.

And this particularly as morphine, in proper cases of heart disease, is an altogether invaluable remedy, that may be just as potent for good as it seems to be capable of effecting evil. The subject is well worthy further careful study, in order that we may learn with more accuracy just what constitutes the contra-indications for its employment.

A correspondent of the Indiana Medical Journal writes upon the subject as follows:

In the last issue of your journal, which reached me yesterday, I notice an abstract from the WEEKLY MEDICAL REVIEW on the subject of morphia in angina pectoris.

One case is related of the occurrence of sudden death shortly after hypodermatic injection of one-quarter grain morphia, during a severe attack, which had lasted then twenty-four hours; and a second case is related occurring practically under similar circumstances with a like fatal issue. In the latter case it was known that morphia only was administered, and the report states that "it would be interesting to know whether there was any atropia associated with the morphia."

This prompts me to recite a case in point that occurred last Wednesday night. One week previous, G. H., awaiting trial by court-martial, was examined by me and reported upon as being physically able to perform the hard labor ordinarily required of military convicts. This examination included a careful inspection of the condition of the heart and lungs and other viscera, the prisoner being in a nude state. On being asked if he complained of any physical disability, the prisoner stated that he had suffered from what the doctors called rheumatism of the heart; had had an attack three weeks previously, which was relieved by foxglove; had never had rheumatism; had been thrown from a horse several years before and struck upon the left breast against the ground. A few months thereafter he experienced his first anginal attack.

No organic valvular disease existed.

At tattoo, Wednesday last, as his prison cell door was about to be bolted for the night, I was summoned to his case and roused him from a stupor into which he had doubtless been thrown by his agonizing precordial pain. He was immediately conveyed to the hospital on a stretcher, and

a mustard draft, of large proportion, was applied to his chest, and hot bottles to his extremities.

A solution of morphia and atropia sulphates was at hand, in the proportion of five-sixth grain of the latter to two ounces of magendie; of this ten minims were injected over the precordial region. I have seen an attack of angina pectoris in a female relieved by the subcutaneous injection of ten minims of magendie alone, but that was mere child's play compared with the ordeal through which this unfortunate was doomed to pass.

He was apparently in mortal agony; his two hands pressed over the precordia; his cervical spine rigid and in opisthotonos, and his whole frame in a clonic convulsion, with pupils widely dilated.

In twenty minutes after the first hypoderm, the injection of ten minims was repeated, and chloroform was administered by inhalation.

This afforded him momentary relief and lengthened the intervals a little between his agonizing groans, but so fearful was his suffering that I did not hesitate to inject ten minims more in a half hour, and after another lapse of three quarters of an hour I rashly (unless the exigency and issue of the case plead in extenuation), injected fifteen minims more, making in all forty-five minims or about one twenty-fourth gr. atropia and one one-half gr. morphia, reducing the number of respirations to four per minute. Their character and rhythm were, however, good, and no cyanosis was observable. The case had resolved itself into one of profound opium narcosis. One ninety-sixth grain of atropia was then administered subcutaneously, and had the effect of increasing the number of his respirations up to six per minute. In the morning his respirations numbered eight to the minute, and his bladder was competent to empty itself, despite the hypoderms. The precordial pain was still quite severe, but bearable with fortitude. At night ten minims of the morphia and atropia solution were again administered under the skin, and repeated the following night. On the next succeeding night a severe anginal attack set in, attended by cervical opisthotonos and tetanic rigidity of the extremities. Chloroform was inhaled and a hypoderm, of fifteen minims of the solution administered, and after an interval of two hours twelve minims more were injected.

Last night the patient asked for another hypoderm, but being just fresh from a perusal of the miscellaneous in your journal, I hesitated until I should learn "whether in the first case there was any atropia associated with morphia."

The case I have related certainly shows great tolerance of the two alkaloids combined in the relief of the heart-rending agony of angina pectoris.

H. I. Raymond, M. D., U. S. Army.
Alcatraz Island, Cal., June 3, 1884.

We have in mind a case in which the attending physician of a family refused to administer morphine in a case of severe cardiac pain, on account of evident organic changes. During a severe paroxysm another physician was called in and administered a moderate hypodermic injection of morphine, and the patient died in a short time. As a matter of course it is impossible to say whether death in this case was hastened or caused by the morphine; the friends of the patient were of that opinion, as they were aware that the first physician had refused to administer the drug under similar circumstances. As the Record states, the subject is one that will bear a great deal of further study.

An Electric Woman in France has awakened quite a marked degree of interest lately. She has been under observation for about three years, is now about 29 years of age and neuropathic. Whilst a girl, she noticed that at certain times her hair produced crepitation and emitted sparks in the dark. She can attract light bodies, such as pieces of paper, ribbons, etc., with the fingers, and her hair not only produce sparks when combed, but stand apart. When her clothing is put upon her, there is produced not only a luminous crepitation, but they even adhere to the body; this latter sometimes is so great that it interferes with the movements of the body. She has also the power of charging bodies with electricity. The amount and intensity of the electricity generated by her depends upon the state of her mind, as also upon state of the atmosphere. The case is a remarkable one, and is being made the subject of the closest study by Dr. C. Féré, who will doubtless produce a detailed history of it in time.

The Danger of Chlorate of Potassium indiscriminately administered is dwelt upon editorially in the Indiana Medical Journal, and cases of poisoning and deaths are quot-

ed as a result of its use. The editor very properly says: "Physicians should correct the very prevalent error in the minds of the people that it is a harmless agent." He might have added that physicians should correct this error in their own minds. A mistaken idea of its physiological action has made it a fashionable agent in zymotic diseases, especially diphtheria, and scarlatina, and we have no hesitation in asserting that death in these two diseases has not infrequently been caused by its excessive use. The routine prescription of tincture of chloride of iron, and chlorate of potassium in the above mentioned diseases is not only unscientific. but absolutely harmful in a high degree.

Transposing Different Stages of Hypnotism by Means of the Magnet has been effected by M. Féré, and his results have been reported by him to the Société de Biologie, of Paris. If, in a subject in a semi-cataleptic state, a magnet is placed near the cataleptic side, this is soon observed to pass in a lethargic state, the eye remaining open; in the same manner hallucinations may be transferred. The phenomena of aphasia, which have been induced, may be thus modified and a series of experiments conducted, which all confirm the theory of cerebral localizations.

The Hygienic Action of Naphthaline and Bromide of Zinc has been examined by Testa and reported in the Gaz. degli Ospitali. The experiments made by the author have enabled him to see that naphthaline has a general and local action that are about inoffensive. This substance, injected hypodermically in doses of one gramme, produced in guinea pigs but a light and transitory trembling. The normal temperature is not sensibly lowered under its influence, but the thermic elevation of fever falls very rapidly one-half or even one degree. In the same manner, bromide of zinc especially studied by Dr. Testa, has been shown to have an action identical with that of bromide of potassium, wite this difference that it is depressing and that its influence is much more feeble.

Bright's Disease of Malarial Origin.—Dr. I. E. Atkinson, of the University of Maryland, believing that this subject has not attracted the attention it deserves, has been led to study with reference to it all cases of malarial fever coming under his observation during the late summer and early fall of the past two years, at Bayview Asylum, and he gives the result in an elaborate paper (American Journal of the Medical Sciences). The conclusions which he reaches are as follows:

1. Transitory albuminuria is not uncommon in the course of malarial fevers, and is due to the intense visceral congestions characteristic of these affections. It only may endure throughout the height of the congestion, recurring with each return of this, or it may persist in the intervals, in which event a higher grade of congestion is attained, more nearly approaching a condition of acute inflammation.

2. In a proportion of cases, varying with locality and type of prevailing epidemic, or individual conditions, inflammation of the kidney occurs, accompanied by dropsy and the usual symptoms of nephritis.

3. The usual form of malarial nephritis is the tubal and diffuse variety. In this the inflammation seems to be most intense in the vicinity of the glomeruli.

4. Contracted kidney may occur as an advanced stage of malarial nephritis either from long continued or frequently repeated attacks of malarial fever, or from fibrotic changes such as may ultimately occur in ordinary tubal or diffuse nephritis. It is altogether improbable that this form of malarial renal disease ever occurs primarily as purely interstitial nephritis.

5. These changes may be induced by any form of malarial fever, though they more commonly follow chronic intermittent fever.

6. The tendency of malarial inflammation of the kidney is toward recovery. But from the persistense of the impaludism or the intensity of the inflammation, structural changes may be produced that are characteristic of chronic Bright's disease, when the

gravity of the affection will be as that from chronic disease from whatever cause.

7. Treatment should be directed primarily against the malarial intoxication, more especially in recent cases. A correction of this will often be followed by a complete, though gradual, subsidence of the nephritis. Even in more chronic cases, the malarial factor in the process definitely should be destroyed if possible, after which the disease should be treated as ordinary Bright's disease.

A Correspondent asks for Levis' plan for the radical cure of hydrocele with carbolic acid. Ans. Tap the hydrocele and inject fromone to two drams of 95° carbolic acid into the sack. If the fluid should again accumulate remove it by tapping. It is then said not to return.

"At the meeting of the American Medical Association held at Washington in May last, an Amendment to Regulation II was adopted which provides that:

"Membership in the Association shall be obtainable by any member of a State or County Medical Socieiy recognized by the Association upon application endorsed by the President and Secretary of said Society; and shall be retained so long as he shall remain in good standing in his local Society, and shall pay his annual dues to the Association.

Applications for membership in the manner specified above, accompanied with Five Dollars for annual dues, should be sent to the Treasurer, Dr. Richard J. Dunglison, Lock Box 1274, Philadelphia, Pa., on receipt of which the weekly Journal of the Association will be forwarded for one year to such member."

A Case of Left Inguinal Colotomy for Imperforate Rectum.—Dr. W. H. Haynes, of New York, records in the July number of The American Journal of the Medical Sciences an interesting case of inguinal colotomy. One procedure in the treatment we do not find discussed elsewhere in detail, namely, that of opening up a passage at the natural site for the canal, either simultaneously or subsequent to the operation of opening of the gut. When the two operations are to be performed at the same time, the first or inguinal opening would be in the nature of an exploratory operation, and should be made small so as to admit of immediate closure, and return to the peritoneal cavity after a passage had been secured at the natural site. If this latter be not secured, then the opening could be enlarged and made to serve the purpose of an artificial anus in the abdominal wall. The advisability of this procedure,however, is at present in such a doubtful state that only the experience of a number of operators can determine it. Of the few cases so far undertaken in this manner that Dr. Haynes can find recorded, his own is the only one that survived the second operation.

Dr. Haynes' single experience, though successful, does not lead him to advise this procedure, since the object of it will, during the early years of its life, be dependent on the exceedingly diligent and constant attentions of others whose affections and services, though the closest, are not to be depended on, as was demonstrated in his case. If the second operation be subsequent to the first, the patient will have a double annoyance, or be under the necessity of having a third operation performed for the closure of the opening first made, which is not unattended by danger to life or of doubts as to the result; and perhaps be under the necessity of having to have it reopened, owing to neglect in the proper after-treatment of the new canal in the natural site. Whereas, if one is satisfied with having saved life in a manner which numerous cases testify is not unenjoyable or full of discomfort, as used to be maintained, all dangerous risks of subsequent operations are avoided, there will be no more dependence on other's services than is natural, and many sources of distress that natural flesh is heir to will be obviated.

Ergot in three-grain doses is said to be good for constipation arising from atony of the muscular walls

CONTRIBUTIONS.

REPORT ON OPHTHALMOLOGY AND OTOLOGY.

BY R. TILLEY, M. D.

Read Before the Illinois State Medical Society.

[CONCLUDED.]

Ophthalmia neonatorum during the past year has justly excited the attention of many of our brethren in charge of lying-in hospitals. When we learn that in several of the European countries from 40 to 50 per cent. of the blind cases are attributable to this cause the importance of the subject will be readily seen. Magnus says that in the asylum for the blind at Breslau 34 per cent of the cases arise from ophthalmia neonatorum. To give an adequate idea of the importance of this question we might refer to the expense to the state which the majority in such a condition entails. But that is not necessary. The possibility of a human being being deprived of his most important organ of knowledge which is practically next to life itself, is sufficient to make the physician constantly on the alert to permit no precaution on his part to be neglected to keep such a calamity at the lowest minimum possible. Prof. Credé recommends the dropping into the eyes of the new-born, on the cornea, one drop of a two per cent. solution of nitrate of silver, and claims by this means to have reduced the cases of ophthalmia neonatorum from 10 to 0.2 per cent. This is, of course, an excellent showing, but we are disposed to think a similar advantage could be obtained by simple cleanliness. There are those who maintain that ophthalmia neonatorum when it has developed can be cured just as well by strict cleanliness as by the use of the nitrate of silver. Without pronouncing judgment on that question, it certainly does seem very questionable policy to apply a solution of nitrate of silver to a new-born babe's eye without the evidence of the presence of disease. All those, however, who have charge of the new-born babe should be instructed to cleanse the region of the eyes well with fresh water, before the water has been used for the other part of the body, with a few small pieces of soft linen, each piece being thrown away as it is used; and in the event of an inflamed condition of the eyes occurring, send for the physician, but meanwhile to wash the conjunctival part of the eye as often as any pus accumulates with simple clean warm water. In many cases it will be necessary to show them that the ocular conjunctiva can be washed with water without giving the babe any inconvenience.

The association of constitutional diseases with the affections of the eyes; These are daily becoming more and more definite in proportion as they are studied with an increasing comprehensive grasp; and they are the more interesting in proportion as they are the more studied. The association of the affection known as retinitis albuminurica with Bright's disease has been illustrated during the past year in a peculiar way. Retinitis albuminurica affects we may say invariably both eyes. But a case was lately observed in France where the retinitis marched, pari passu, with the general affection, but strange to say, only one eye was affected; this was a source of astonishment to all the observers; no trouble occured whatever with the right eye, whilst the left was very seriously impaired. To the astonishment of all concerned, the autopsy revealed the presence of only one kidney, and that one situated on the same side as the affected eye. Such a peculiar combination of circumstances as those associatedwith that case will probably not occur for years. In the first place men usually have two kidneys; and certainly a small proportion of the race have Bright's disease, and not more than about 10 per cent. of those afflicted with Bright's disease develop the characteristic retinitis, and even of those that are so afflicted a post-mortem is permitted on only a very few; and that this case should have been so closely observed and found its way to the autopsy-room is extremely remarkable.

The ovaries exert their influence also on the eyes. Priestly Smith, of England, lately reported a case in which absolute blindness of one eye was associated with certain "hysterical" symptoms, and no other cause of blindness could be assigned, the other eye manifesting symptoms of diminished visual acuity. Oophorectomy was performed and the result was that the trouble in the eye still possessing vision ceased.

The development of difficulty amounting to blindness in pregnancy, a case of which was reported during the past year, would we think be responded to by every active practitioner by the establishment of premature labor.

We here venture to remind the members of the association of a certain obligation which devolves upon us toward the blind and the deaf and the dumb. In order to form a correct idea of what the State has provided for those thus afflicted, we visited the two institutions of Jacksonville devoted to that purpose.

(Notice please that we do not speak of them as charitable institutions.) Wealthy and well-to-do people are to be found there as well as the poor. The work of educating those that are thus afflicted has been undertaken by the State, and we can bear testimony to the fact that it is doing its work well. The blind institution is not so extensively utilized by the afflicted, and consequently is less efficiently equipped, but a session or two at this State institution would expand the ideas of the blind wonderfully; evoke dormant faculties, and render them less of a burden to others, and proportionately more of a comfort to themselves.

It may not be known to many of you that in the deaf and dumb institutions of Jacksonville there is to be found the largest collection of deaf and dumb children in the world; and we can assure you they are all as happy as it is possible for deaf and dumb to be. I was afforded every facility by the energetic president, Dr. J. P.Gillet for inspecting the general working of the school, and although I am generally said to be somewhat of a fault-finder, my visit was one of simple approbation. I do not think it necessary to apologize to the association for referring in brief to the two methods of educating the deaf and the dumb. The one almost universally adopted is the method of signs; and for the absolutely deaf, those born deaf and those having become deaf within the first few years of life, it is the only practical method. The other method is that of teaching the pupils to observe the lips and study the action of the various muscles engaged in producing sound, and thus to strive to coordinate the action of such muscles to express their ideas. To attempt the latter method with those that have never heard is a laborious task which must in the nature of things be productive only of very little fruit. In the state institution a judicious modification of both plans is adopted. We are inclined to think, that yielding to popular opinion, a little more time is given to the speaking than the good judgment of the president would indicate. The time thus spent in producing wonderful, but yet in conversation with strangers poor results, could be so much more judiciously used. In one case in the institution, where never a word has been heard, the result, considering the disadvantages, was surprising. We had the privilege of inspecting the ears and throats of more than a hundred of the pupils, and whilst no new facts were developed it gave us an opportunity of becoming more intimately acquainted with the condition of the pupils than would otherwise have been possible; and we can assure the members of the association that if they are acquainted with any neglected deaf and dumb, that it would be an act of genuine kindness to go a little out of their way to make the value of the institution known.

Considerable work has of late been accomplished in locating the regions of sight and hearing in the brain, and thus facilitating the question of diagnosis of typical cerebral lesion. Such work will necessarily be a slow process, requiring many carefully recorded observations on the part of the practitioner, supplemented by equally patient work on the part of the pathologist. As a matter of fact in the recording of cases, whilst the condition of the eyes are invariably carefully noted, the function of hearing is not infrequently overlooked, and consequently not recorded, and thus an item of considerable value is lost sight of in unraveling certain pathological conditions of the brain. Illustrating the value of this observation may be mentioned the case reported by Seymour, where the diagnosis of a cerrebellar tumor pressing on the pons was rendered the more sure by an absolute unilateral deafness. The diagnosis was confirmed by post-mortem. It is not necessary to say that the simple record of deafness is not of sufficient importance without careful investigation as to its probable cause.

On the question of therapeutics relative to otology, there is very little that is new to be said; but the causes, prophylaxis and treatment of otorrhœa will never cease to be interesting to those who are acquainted with its bearings. But were we to attempt to embrace this whole question, it would be necessary to write a paper rather than give a report. We confine our remarks, consequently, to what is frequently called the dry treatment of otorrhœa.

The substance above all others which has found the most favor for this purpose is the impalpable boric acid; to listen, however, to some people's remarks on this question, it would seem that all that was necessary to do in such cases is to pack the external meatus with boric acid. Some four years ago scores of cases of chronic otorrhœa were reported as cured immediately with burnt alum. We are not aware, however, that any reported cases of death referable to that cause are on record. We have, however, private knowledge of some two or three such cases. Any substance that will dam up a chronic discharge and dry in the damming may do permanent harm, and this is especially the case in a location in such close proximity to the brain as is the middle ear; and whatever substance we introduce into that cavity we cannot afford to pack it in. Whatever substance is used, if we wish to ob-

tain the best results, the most perfect cleanliness is necessary previous to any application whatever. And when that desired condition of cleanliness is obtained, which sometimes means from a half to an hour's good close work for an individual ear, a very thin layer of impalpable powder of boric acid is all that is desirable or all that is needed. The powder is best introduced by means of one of the many simple powder blowers in use, and can be directed a little better by means of an ear funnel. The value of this little device is not sufficiently appreciated. Calendula is recommended to be added to the boric acid by a specialist in the East. We cannot realize any advantage associated with it, but regard it rather as a positive disadvantage. When, however, by any malformation it may be difficult to introduce the powder as such, although by means of a good powder blower it can be forced into minute orifices, a saturated solution of it in alcohol will be found of great advantage. With due care to cleanliness an uncomplicated case of chronic otorrhœa rarely resists a half dozen applications of boric acid, and very frequently yields on the first application. But in order to obtain the best results and allow the membrane to heal if possible, under the most favorable circumstances, it is necessary to remove from it all obstruction, even an excess of boric acid.

We cannot let this opportunity pass without reminding our brethren that a good many in the profession ignore the possible consequences of a chronic discharge from the ear. As a fact one in a great many cases ceases to discharge, but the large majority continue to discharge at intervals; the child's impairment of hearing increases, and at the age of womanhood or manhood the sufferer finds himself handicapped with an irreparable impediment. There are only very few cases, practically none, of otorrhœa in childhood but can be relieved, and where there is no organic disturbance of the auditory nerve, the hearing fully restored, and it is distressing to hear men who superintend the health of a family speak carelessly of such affections.

ON TINNITUS AURIUM AND THE THERAPEUTIC VALUE OF NITRITE OF AMYL IN THIS AFFECTION.

BY ADOLF ALT, M. D.

Read before the St. Louis Medical Society, June 21, 1884.

The most interesting, and at the same time the most distressing, symptom we meet with in the treatment of aural affections, is undoubtedly the tinnitus aurium. It not infrequently happens that patients would not mind the deafness if they only could be rid of the distressing noises in their head, and they are as often satisfied that there is nothing the matter with their ears.

Such being the prominence of this symptom in aural affections, it is not astonishing that it is often considered to be a disease in itself and not to be dependent on any pathological condition of the sound conducting apparatus.

If I desire to-night to draw your attention to a remedy, which in some cases of tinnitus will prove of value, I am prompted to do so from the fact that very few remedies are at our disposal, which are of any value at all in the treatment of this distressing symptom.

Before, however, speaking of this treatment, allow me to recapitulate to you what forms of tinnitus there are, and what we know about their causes.

As you know, the description the patients give of the noises vary considerably; they compare them to the ringing of bells, the blowing of a steam-whistle, the boiling of a tea kettle, the rushing of water, the singing of birds, the chirping of a cricket, the rolling of carriages, the murmur of trees, and so on. In other cases patients state that they hear continually short connected melodies, or even noises like the cry of a child; in others the noise is a rhythmical hammering.

Although it is often very difficult to compare the noises heard in the ear with any noises outside of us, we find in a general sense that the patients are influenced in their comparison by their mode of life.

By analyzing the different noises complained of we may distinguish between noises which lie in the higher and such which lie in the lower octaves of the musical scale. The former we may very appropriately call "ringing," while the latter may be called "roaring." The ringing is especially frequent in cases of otitis media catarrhalis chronica.

Whatever the noise complained of may be there is always a disease of the auditory apparatus at its base. In a small number of cases the noises are due to disturbances in the vasculary system. Thus Dr. C. H. Burnett of Philadelphia reported three cases in which lesions of the sympathetic nerve caused flushing of the skin surrounding an ear and tinnitus; and Dr. C. Brandeis of New York, two cases, in one of which the tinnitus was due to dilatation of the vertebral artery, which supplies the labyrinth, in consequence of

a lesion of the sympathetic nerve due to spondylitis of the cervical vertebræ; in the other case the tinnitus accompanied and disappeared with a fibrous goitre, in which case the noise was undoubtedly due to congestion of the veins which go to the jugular vein, and among which are those of the labyrinth. Noises may further on be due to aneurism or to a varix aneurismaticus of the carotid artery within the canalis caroticus in the petrous bone. In other cases the noises are due to anemia.

How the noises come about in cases where the auditory apparatus as such is affected, is a question which is as yet not perfectly settled. We find tinnitus in affections of the external meatus, or of the Eustachian tube as well as in affections of the inner and middle ear. There must, therefore, be different factors at work to bring about these subjective noises.

When, for instance, the noise is due to the presence of hardened cerumen or a foreign body in the external auditory meatus, the pressure of such a foreign body upon the membrana tympani is probably directly transmitted to the fluid in the inner ear, and thus the otic nerve being pressed upon, the perception of noise is brought about. When, however, the noise is due to closure of the Eustachian tube, the exhaustion of air in the middle ear will cause this and the inner ear to be under a higher atmospheric pressure than in the normal condition, and again noises are perceived. A similar pressure is exerted by exudations into the middle ear, and by the contraction of newly formed tissue with retraction of the membrana tympani and ankylosis of the ossicles as we find it in chronic otitis media catarrhalis. The supposition of a tonic spasm of the stapedious muscle (Kessel) or of the tensor tympani (Woakes) causing a muscular noise, seems to be applicable to very few cases of tinnitus aurium indeed. In a small number of cases the noises are undoubtedly due to affections of the otic nerve itself.

Tinnitus aurium, when due to an obstacle to the free passage of air in the Eustachian tube, or to the presence of a foreign body, or of hardened wax in the external auditory meatus, or to an acute catarrhal ostitis media, usually disappears with the removal of its cause.

The distressing continuous tinnitus is mostly due to chronic otitis media catarrhalis, and for its cure in these cases numerous remedies have been tried and recommended to be used, aside from the mechanical treatment of the otitis media. The experience has, however, always been that the results, though sometimes brilliant, are unreliable.

In 1876 Dr. J. Michael, of Hamburg, Germany, published a series of observations on the therapeutic value of nitrite of amyl in tinnitus aurium (Knapp's Archives, Vol. V. page 535) which it seem to me ought to have encouraged the profession to make a great many more experiments with this remedy than there seems to have been made. Michael did not claim more than that in some cases of obstinate tinnitus aurium the inhalation of nitrite of amyl had given him great satisfaction. Perhaps just this modest way in which he published his observations has been the cause that, although every remedy against such a distressing symptom as tinnitus aurium should be gladly welcomed, nobody seems as yet to have repeated his experiments.

The action of nitrite of amyl is, in short, according to Binz, the relaxation of the blood vessels, diminution of the blood pressure, vertigo and unconsciousness. The inhalation causes the face to become flushed and the carotid arteries to pulsate. The toxical effects pass off after a few minutes, sometimes leaving a slight headache behind. It is best inhaled by dropping it on cotton, as it is apt to eat holes into a handkerchief.

Although, according to Benz and others the remedy is perfectly harmless, I have met with three cases, all of females, in which the first inspiration almost brought about a fainting spell, which was at least very alarming. I am now, therefore, always very cautious when using it for the first time on a patient. If it is well borne, nitrite of amyl should be inhaled until vertigo ensues; if not persisted in to this extent, the inhalation is worthless and ineffectual. As in some persons, especially females, the inhalation of nitrite of amyl seems to have an exciting effect in the sexual sphere, I prefer the presence of a third person, especially when giving it to a young girl. In most people the inhalation is followed by a desire to urinate.

With regard to the tinnitus aurium the effect of the nitrite of amyl is sometimes nil, in other cases it will increase the noises considerably, but when inhalation is discontinued, the tinnitus will be the same as before; again in other cases this exaggeration of the symptom is followed by a considerable diminution which is temporary or lasting, and lastly, in a small number of cases, the inhalation will cause the noise to become less noticeable without previous exaggeration.

On the whole I find that only in such patients are we at all likely to see an effect (even if it is only a temporary one) from the inhalations whose noises are at the first trial changed in some way, if only in the key.

Number	Sex	Age	General condition	No effect	Momentary improvement	Temporary improvement	Considerable lasting improvement	Cured
1	M	34	G				1	
2	F	36	P	1				
3	F	29	G		1			
4	F	19	P					1
5	F	30	G		1			
6	F	21	P	1				
7	M	28	G				1	
8	M	50	G					1
9	M	52	G				1	
10	F	26	G	1				
11	M	32	G	1				
12	F	36	G	1				
13	M	47	P	1				
14	F	48	G					1
15	F	18	P	1				
16	F	25	G	1				
17	M	17	G					1
18	M	26	G				1	
19	M	41	P			1		
20	M	36	G		1			
21	M	63	G	1				
22	F	23	P				1	
23	M	57	P				1	
24	F	23	G				1	
25	F	30	G			1		
26	F	37	G				1	
27	F	23	G				1	
28	F	28	P		1			
29	F	21	P		1			
30	F	21	P	1				
31	F	30	P				1	
32	F	30	P	1				
33	F	31	G		1			
34	F	28	G		1			
35	F	7	G	1				
36	M	74	G	1				
37	M	25	G		1			
38	M	64	P	1				
39	F	28	P	1				
40	F	36	P	1				
41	F	65	P	1				
42	F	20	P	1				
43	F	21	P					1
44	M	22	G			1		
45	M	53	G				1	
46	M	20	G					1
47	M	31	P			1		
48	M	26	G	1				
49	F	38	P			1		
50	F	16	G	1				
51	M	19	G	1				
52	F	30	P			1		
53	M	35	G	1				
54	M	57	P	1				
55	F	16	G			1		
56	M	18	G					1
57	F	29	G			1		
58	F	38	P			1		
59	M	26	G				1	
60	F	50	P			1		
61	F	40	P			1		
62	M	16	G			1		
63	M	27	G					1
64	F	28	G			1		
65	F	32	G	1				
66	M	60	G					1
67	M	21	G				1	
68	M	16	G					1
69	F	35	G				1	
70	M	45	G			1		
71	F	18	P	1				
72	F	18	P			1		
73	M	13	G			1		
74	F	20	P	1				
75	F	52	G			1		
76	M	18	G					1
77	M	39	G	1				
78	M	58	G	1				
79	M	19	G	1				
80	M	28	G	1				
81	M	13	P			1		
82	F	18	P	1				
83	F	48	P		1			
84	F	28	P			1		
85	F	21	G			1		
86	F	33	G	1				
87	M	48	G					1
88	F	38	P			1		
89	F	27	P			1		
90	F	29	G			1		
91	M	39	G					1
92	M	70	G	1				
93	F	23	P	1				
94	F	50	G			1		
95	F	30	G				1	
96	F	17	P	1				
97	F	54	P			1		
98	F	30	G					1
99	F	46	P		1			
100	M	54	G				1	
58 F 42 M		Youngest individual 7. oldest 74 y'r's.		35	10	25	16	14

In order to possibly arrive at a conclusion which cases might always be likely to derive some benefit from the inhalation of nitrite of amyl, I have used it quite extensively for seven years.

I have now compiled a list of one hundred cases of tinnitus aurium consequent upon chronic otitis media catarrhalis, in which I have employed this remedy. The table concerns 58 female and 42 male patients, the youngest individual being 7, the oldest 74 years of age. The results of the treatment with nitrite of amyl, aside from the treatment for the otitis media catarrhalis chronica were, in these one hundred cases, the following:

No effect at all, 35.
Momentary improvement, 10.
Temporary improvement, 25.
Considerable lasting improvement, 16.
Apparently cured, 14.

I am well aware that in all such statistics a source of error may be that cases have gone over into some other hands, but some of the cases named as apparently cured, I had occasion to see and examine again in periods varying from six months to three years.

When trying to find characteristic symptoms, which the cases improved and cured by the inhalations might have in common, I could not find any, not even their general condition of health being alike in all cases. This is especially striking when looking at the cases apparently cured: (See table.)

Of those cured there were ten males and four females. The general condition of the males was good in all of these cases, while the general health of the four cured females was twice in a poor and twice in a bad condition.

Of those considerably and lastingly improved nine were males and seven females, the general health of the latter being in a good condition five times and twice in a poor one, while the general health of the males was almost uniformly good (eight times good, one time poor.)

I must, therefore, end this paper with the statement that I am as unable as Michael was, to say in which cases a beneficial effect upon the tinnitus may a priori be expected from the inhalations of nitrite of amyl, nor can I explain its action. If it was not as high an authority as Binz is, who states that the inhalation of nitrite of amyl causes diminution of blood-pressure, I would be inclined to believe that it causes an increased blood-pressure, as the pulse becomes strong and full, even in anemic individuals, and I would then consider its beneficial effect to be probably due to a forcible dilatation of the compressed blood-vessels, an increased nutrition of the parts affected with chronic otitis media catarrhalis.

At any rate a remedy which does away with so distressing a symptom as is tinnitus aurium in 14 per cent and improves it lastingly in 16 per cent. deserves to be kept in mind, and when once the experiments made with it will be more numerous than my own are today, we may perhaps be able to select the cases in which it may at once be expected to act beneficially.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

REPORTED FOR THE REVIEW.

(CONTINUED.)

Dr. Alt read a paper on the

Treatment of Tinnitus Aurium by Nitrite of Amyl.

Dr. Dickinson.—I have not had occasion to use nitrite of amyl in this affection, but it seems as though its modus operandi must be somewhat different from that which is usually recognized. It has been recommended in the treatment of cases of optic nerve atrophy and for the reason that its effect is to dilate the vessels of the part and render the tissue and parts surrounding more vascular. Possibly it may have the same effect in tinnitus aurium. By inhalation it may act as a sedative diminishing exaltation of function and by this mode of action diminishes those abnormal functions. I have used galvanism with marked success in many instances, and in some have overcome the tinnitus aurium entire, and effected an entire cure; in others the effect has been temporary, the beneficial results continuing for two or three days, the affection afterward returning. In other instances in which I have used it, it had no effect at all. Mr. Wilde, I remember in his work, recommends the use in this affection of the tincture of arnica, fifteen drops taken in an ounce of the infusion. I never have tried it, however, I had so little confidence in the recommendation.

Dr. Post.—Indirectly at the solicitation of Dr. Alt I have had occasion to use nitrite of amyl in tinnitus aurium. Some of my cases apparently derived considerable benefit from it; in other cases it has not caused any improvement but rather increased the trouble. My impression has been, however, from what I have seen, that its effect was produced rather

by bringing an increased supply of blood to the labyrinth than by diminishing it. One cause that I think of now which led me to this conclusion was a case in which the tinnitus was increased when the patient indulged in stimulating drink, and the ringing seemed to be more intense after the use of nitrite of amyl also.

Dr. Mulhall.—Was it permanently so?

Dr. Post.—As I recollect, he would say the next time I saw him after the treatment, that he had been more annoyed that day than usually, and I found what gave him more relief was the use of bromide of potassium. This case afterward went out of my hands for other serious troubles, and I don't know what became of him.

Dr. Pollak.—Dr. Alt's paper is very interesting as well as instructive. Tinnitus aurium is frequently met with in aural practice. It is usually accompanied with impaired hearing, but it does sometimes occur, when hearing is not affected. It is either sympathetic (subjective) or idiopathic (objective), it causes great annoyance, makes persons very irritable, unfits them for work, depresses their spirit, and brings them sometimes to the very verge of insanity, to suicide.

When tinnitus is of a mechanical origin, caused by direct or indirect pressure upon the labyrinth, it is usually amenable to successful treatment; thus inspifated cerumen, foreign bodies, living insects in the external meatus, can be easily seen and removed. The accumulated fluids in acute catarrhal or purulent inflammation of the middle ear, which press upon the floor of the stapes and fenestrum rotundum, and through them on the labyrinth, are removable, and the tinnitus is stayed. Hyperplasia of the nasal or naso-pharyngeal space, inflammatory stenosis of the Eustachian tubes, which, by absorption of the air in the tympanal cavity, causes retraction of the membrana tympani, dislocation of the ossicles, are prolific causes of deafness and tinnitus, but can be restored to the normal status by appropriate constitutional and local treatment, especially by inflation with the Politzer air-bag, by use of Eustachian catheter, or by galvano caustic or electrolisis, etc.

But there are many other causes of tinnitus which are quite obscure; they may be remote from the auditory organ, and may, by reflex action, cause irritation of the acusticus, analogous to the photopsy of the diseased retina. Hyperæmia, apoplexy, anæmia, chlorosis, idiopathic and specific inflammation, toxic irritation of the labyrinth, malarial diseases, valvular disease of the heart, insufficiency of the semi-lunar valves of the aorta, calcarian deposits within the large blood vessels, aneurismatic changes in the arteries of the ear and surroundings, all these may cause noises in the ear. It is evident, that such causes, even if ascertained, are not always remediable. I will cite a case of tinnitus in a distinguished divine, a most successful missionary among the Western Indians, who, up to the age of nearly three-score and ten, has been in the enjoyment of perfect health. Not until then did he have a toothache, which tormented him so much that he had the tooth extracted. It was the second molar of the left upper jaw. It was a large and apparently sound tooth with three or four fangs. The extraction gave him such a wrench that he exclaimed "Something has given way in my brain." From that moment an intense and most agonizing tinnitus in the left ear began, and it never left him to the day of his death. There was neither pain nor dimished acuity of hearing.

The membrana tympani was perfectly normal, movable on inflation, and not hyperæmic, but the noise was distressing in the extreme. "It is a constant, an incessant roar of a cataract" was his emphatic expression. Numerous were the remedies tried, but all in vain. He went to Europe, he consulted the best known aurists of Great Britain and the Continent. He returned after an absence of two years, unimproved, and changed in appearance beyond recognition. This ever cheerful, best conversational man, was depressed in spirits, monosyllabic, a wreck of his former self.

A convergent strabismus of the left eye, from paralysis of the external rectus and consequent diplopia was an additional affliction. Hæmaturia advened, which increased very rapidly. Bright's disease was now fully developed, and terminated his existence. No autopsy. Probably a minute embolus in the brain?

Since the publication of the paper of Dr. Michael, of Hamburg, on "The Use of Nitrite of Amyl in Diseases of the Ear," in the Archives of Otology in 1866, I have tried it liberally in my aural practice. I have, however, not met with such results as I looked for. An occasional temporary improvement is all I have attained. But, after hearing Dr. Alt's paper read, and reading the late communication of Dr. Michael in the Deutsche Medicinische Zeitung) I shall renew my experiments and persevere with them as far as opportunity will admit. The percentage of entire and partial success as has been reached by Dr. Alt is very encouraging, and will give an impetus to further trials.

The case on hand now, is that of a man

aged 28, robust, hale and hearty; only subject to slight rhino-pharyngitis, he lost his hearing gradually about fourteen months since—H. D. of watch ½—1 inch—, of tuning fork 3 inches—of ordinary voice 2 feet—bone conduction watch O—of tuning fork, normal. Meatus somewhat curved and stenosed—drumhead retracted, little movable, rather opaque, traversed by two large blood vessels.

Leeching—Fe iodine to mastoid process, insufflation of finely powdered boracic acid into the throat, frequent inflation with Politzer air bag was the treatment, besides the internal use of bromide of potass, with fl. extr. of ergot—biniodide of mercury $\frac{1}{48}$ three times a day—also the faradic current. Hearing of voice improved considerably, but not of watch nor bone conduction. Tinnitus, which is different in each ear—loud buzzing in one and a nipping in the other—is not changed.

For months, nitrite of amyl has been used up to vertigo, with only negative result.

An anæmic young woman presents herself in the clinic to get relief from impaired hearing and especially tinnitus. The appearance of the ear in all its parts is normal. H. D., 1, bone conduction normal, but tinnitus distressing, makes her melancholy and positively refuses an offer of marriage on that account. Ferruginous tonics, Politzerisation and Faradization improved hearing, but not the tinnitus. Nitrate of amyl given but three times, but while in the vertiginous state involuntary micturition ensued, causing much embarrassment, so that I desisted from its use, unless she tries it at home, when alone with her mother.

On referring to my journal, I might be able to state, on how many patients I have treated the nitrite of amyl, but the result, as stated, was unsatisfactory.

This, however, will not deter me from further trials. It would be gratifying, if tinnitus could be even temporarily intermitted by the use of nitrite of amyl, and always have recourse to it, whenever it recurs.

Dr. Alt.—I have one patient, a very intelligent man, whom I have given this remedy so often that he has learned to do it himself with the assistance of his family. In this case after using it his face flushed and his pulse becomes accelerated for a few minutes. In this case, however, the drug has only caused a temporary improvement, the patient has been somewhat benefited by the use of the Faradic battery, but the results were only temporary; also, the noises were not always the same in both ears for instance, I have a patient who in one has a buzzing noise and the other ear a nipping noise just like the nipping of the finger nails; the noises in his ear are different entirely one from the other.

Dr. Post.—There were two things I didn't understand in Dr. Pollak's remarks that I would like to ask him about. In the case in which he stated there was no bone conduction did he mean conduction of the one sound or tuning fork ?

Dr. Pollak.—There was conduction of the tuning fork, but to a very slight degree.

Dr. Post.—And in the second place what did he say was the cause of death in the last case he recited?

Dr. Pollak.—No post-mortem was made, but hemplegia was said to have been the cause.

Dr. Alt.—Of course, I am sorry that Dr. Pollak had no better results from the use of nitrite of amyl, I don't know whether there is a difference in our method of using it, but I stated distinctly that in some cases,(in thirty-five persons) there was no effect at all from the inhalation. The very first case on which I tried it was a patient about 21 years old. I was then practicing in Canada and she came to me to be treated for tinnitus aurium, she she couldn't get sleep when lying down, sometimes she would sit up in a chair in order to be able to sleep. This girl had been deaf or nearly deaf ever since her seventh year and had since then experienced these noises; after about twenty inhalations of nitrite of amyl she stated absolutely that there were no more noises in her ears. I told her to get an ounce of nitrite of amyl to take home with her and to use it as soon as the noises appeared again. I had occasion to see that the same case a year afterwards and there had been no recurrence of the noises. Although I am skeptical with regard to new remedies, the success in this case encouraged me to try it again. I tried it in about a dozen cases in succession without effect and ceased using it, but I tried it again because I had a case in which all the remedies failed and in this case it had a very good effect. I had a lady under treatment who had suffered from tinnitus aurium for several years, she had been treated by several aurists with different remedies, but never with nitrite of amyl, and from the time nitrite of amyl was used she improved, but the improvement was only temporary; she asked me if she couldn't keep the remedy on hand because it gave her relief for two or three days. I told her certainly, and she has since been using it every two or three days and this keeps the noises down.

Dr. Post.—What is the effect on the ears?

Dr. Alt.—I forgot to say anything about that, but in quite a number of cases the hear-

ing is distinctly increased sometimes very considerably, in other cases not at all.

Dr. Post.—Do you find in these cases where there is improvement in the tinnitus that there is an increase of hearing power?

Dr. Alt.—Not always, although in some cases the hearing gets very much better while tinnitus don't get better by the inhalation of nitrite of amyl. In other cases both the deafness as well as the tinnitus were relieved.

Dr. Pollak.—What quantity do you use?

Dr. Alt.—In the beginning I am very careful in the use of it. I use about one drop at first and I see how this is borne, then I raise the quantity to twenty drops, in fact when it is well borne I don't notice the drops at all I simply saturate the cotton with it.

Dr. Pollak.—Have you never seen any ill results ?

Dr. Alt.—Only in three cases where it caused fainting. I remember one lady who came to me complaining of tinnitus and I gave her this remedy to inhale, she sat before me in the chair and as soon I administered the remedy she tumbled down. Since then I have never given it to a lady unless I had an attendant present.

Dr. Post.—Have you noticed it to produce vomiting?

Dr. Alt.—No, but I have often found headache to follow its use.

Dr. Alleyne.–The paper is very interesting and it strikes me that from the statistics given something might be gathered as to the action of this remedy. The large number of cases which the doctor cited were improved by it, and it is a matter that may be studied, as the effects of any other remedy are studied, and we may finally come to ascertain what is the indication for its use. Now, it seems to me, although I am unacquainted with its use in that kind of trouble, that possibly that it may be from the physiological action of the nitrite that the results are obtained, and we might gather something by which we might get to the point indicated, that of determining when it should be used and with that before us we can prescribe it for those particular cases in which it is likely to be of benefit. As remarked by Dr. Post, there are certain cases in which bromide of potassium answers the purposes for which nitrite of amyl is used, as we all know in cases of spasm, in so-called angina pectoris. In dysmenorrhea I believe it is also used with good results, and may it not be in tinnitus, for example, if there is a spasmodic contraction of the muscular fibre of the peculiar tissue which surrounds the ear, where there is no necessity for its contraction, and thus cause a disturbance which the action of amyl relieves. I do not pretend to say that this is the case, I am only offering the suggestion as it comes to my mind. I think that a study of these cases might probably lead us to ascertain the cases in which its use is indicated. It is a motor depressor, it acts upon the motor nerves, it is not an anesthetic at all, it merely acts upon the motor nerves, depressing them, and in this way we have a diminution of the arterial pressure, in this way we can explain the frequency of the pulse which occurs. In other words, the inhibitory nerves are depressed,and consequently there is frequency of the pulse ; there is a tendency to paralysis of the muscular fibres, it is probable in such cases chloroform or ether would act pretty much the same way serving as a depressor and producing the same results. By gathering together cases and examining them, we may ultimately come to recognize the cases in which it is proper to use amyl.

Dr. Pollak.—Do you think it is a depressor?

Dr. Alleyne.—Yes, sir.

Dr. Johnston.—I would like to ask Dr. Alt to explain what he means by the effect it has in increasing the amorous feelings?

Dr. Alt.—I am not sure about it, but in a number of cases I certainly have been led to think from the actions of the patient that it had the effect of stimulating the sexual desires, of females especially.

Dr. Johnston.—Did the females make demonstration.

Dr. Alt.—It seems to me that they acted in such a way as to indicate that the sexual desires were excited I got frightened, so that I would not administer it unless somebody was present.

Dr. Pollak.—I have seen involuntary micturition occur after the use of nitrate of amyl in the female; whether it happened merely as a coincidence or not, I am unable to say.

Dr. Funkhouser.—In 1876 I made use of nitrate of amyl. In the very first case I used it it produced the same symptoms that have been described by Dr. Alt. In this case the patient also had perforation of the drum. I used the remedy for a considerable length of time, using it as much as two or three times a day, and giving one, two and three drops, but her trouble was a complicated one, there was inflammation of the throat, Eustachian tube, and was what is called of the strumous diathesis. I have used it in some thirteen cases in some of which there seemed to be closure of the Eustachian tube and in some of them the trouble has been cured, but very likely they would have been cured by other

means. I have never had a case that has been cured completely by the nitrate of amyl. I think considerable attention should be paid to the subject, and no doubt Dr. Alt has taken into consideration the appearance of the drum-head. I have also used the Faradic current in this trouble where that has been considerable congestion. I have used galvanism, although I have confined myself in the treatment of these cases to one or the other current. I had a case in the city of a druggist who had been treated by several aurists for quite a length of time, but I think he didn't do them justice, in which there was a perforation of the drum-head, there being perhaps no more than a line or a line and a half around the edge of the membrane left; of course I had to make a topical application, at first I tried all forms of treatment, also inflation, etc., but I think his recovery and cure was due to the galvanic current, so that the drum-head was completely reproduced. I mentioned this case in a paper that I read a year and a half ago before the Medico-Chirurgical Society.

Dr. Atwood.—Perhaps the recital of my personal experience with tinnitus aurium will be of interest, and may illustrate in some instances one of the causes of persistent tinnitus aurium, which Dr. Pollak and Dr. Alt have stated are exceedingly obscure. For 12 years I have had this condition almost incessantly, during this evening it has been unusually severe. It does not interfere with my hearing, which is acute, I do not know that I suffer from any physical infirmity, I am as sound as a dollar; I have discovered the cause of the trouble, in fact I can control it. Whether I shall have incessant ringing in my ears, especially the left one, depends upon myself. I am an inveterate user of tobacco, and have found that the tinnitus is dependent upon my persistence in the use of the weed, by smoking and chewing, smoking producing the greater effect. In my case at least it is a local trouble, of small importance and although it is very loud at times I prefer to bear it rather than forego the consolation derived from the weed. Upon ceasing the use of tobacco the noise in my ears ceases, but if I again use it the trouble immediately recurs.

Dr. Mulhall.—How long is it necessary for you to cease the use of tobacco in order to be relieved?

Dr. Atwood.—Only for a short time, probably a number of hours. Sometimes I stop the use of tobacco for a week and I find that the tinnitus is absent during that time; when I use less tobacco the tinnitus diminishes.

CORRESPONDENCE.

LONDON LETTER.

London, Eng., July 2, 1884.

Editors Review:—Having met Prof. Wood of King's College Hospital at Sir William McCormac's party, he invited us to his clinic and wards. Of course I was on hand, and must say, spent a very useful afternoon. Prof. W.'s clinic is very large and very interesting, he being a pleasant gentleman, is also an admirable clinical teacher, combines a great deal of wit with practical points of importance, and in a gentle manner understands most thoroughly to make the student think and reason for himself. The questions he asked about a simple amputation of a finger, and injuries of the hand, bringing in all the anatomy. and practical surgery, one point following the other, I listened to with pleasure, and admire the great tact he displayed in so modest a way. an ability not many are capable of acquiring. After the clinic we went through the wards, Here, again, it seemed there were no end to the patients. What an enormous amount of work these men must perform here, and all for little or nothing, like everywhere else.

We next visited the Alexandra Hospital, for diseases of the hip in children; No. 18 Queen's Square, where Mr, J. H. Morgan showed us his little patients, about forty beds, and has about one hundred and fifty patients per year. Description of his method of treating the diseas I will give later.

Then Mr. M, took us over to the hospital for sick children, 49 Great Ormond street, where he is the consulting surgeon, and Drs. F. G. D. Drewitt and W. E. Stevenson the attending physicians. It has about one thousand one hundred infants and twelve thousand out patients per year. Here we saw some very interesting cases, all of which I shall report as soon as I find time to do it creditably to myself, profitably to others, and with justice to those gentlemen who take so much pains and spend so much of their time for our pleasure.

However, there is one new and peculiar feature introduced at the St. Bartholomew's Medical School, which I wish to mention, and that is as follows: Every Thursday afternoon they have what is called "Consultation Day." The surgeon on duty, or whose hour it is, brings his cases (generally complicated ones) before the class of students, in the presence of the whole staff of the hospital and others that may happen to be there; he examines his case, makes and gives his diagnosis and prognosis, and gives his reasons why, etc., etc., in rotation. All the others do the same, then the comment follows.

This is very interesting and instructive, a plan which I would recommend the surgeons of our city to adopt. Wonder how many one could find to submit to such a liberal plan? I, for one would agree, it is a nice way to bring forward one's ability, and the student is none the worse off.

The next time you will hear from me from Germany. I remain, yours truly,

Edward Borck.

Cholera is slowly but surely spreading in France.

ITEMS.

Jequirity as a specific for trachoma went up like a rocket and is now coming down like a stick.

The late Samuel Swett, of Massachusetts, has bequeathed $100,000 to various Boston medical charities.

The recently established cancer hospital in New York received $200,000 from one of the Astor family.

The Health Exhibition in London has become the fashionable rage, and as high as 50,000 people visit it on some days.

Next Monday the dispensary of the St. Louis College of Physicians and Surgeons will be opened at 1010 Cass Avenue.

The annual summer-complaint literature is appearing in the medical journals; it is chiefly a rehash of what has already been written.

Menthel pencils have come into vogue lately a a cure for headache, and are about as efficient for that purpose as a poultice for a fractured bone.

The strenuos efforts of Dr. Daniel of Fort Worth, Texas, to establish a medical college in that place seem likely to be crowned with success.

Our French exchanges have been lately devoted to great encomiums upon the late Prof. Gross and mention the fact that a "Gross Professorship" is to be established.

Now that hot weather is upon us and "chafes" are becoming common, the precipitated oleate of zinc is perhaps the best local application that might be used.

A case of yellow fever was reported in New Orleans last week, and the usual quarrel between the doctors took place as to its nature. No other case has since been reported.

Dr. Edward Charton made a motion recently in the French Senate proposing to abolish the guillotine as a method of capital punishment and substituting prussic acid therefor.

In our report of the St. Louis College Physician and Surgeons Dr. A. C. Bernays should have been mentioned as Prof, of Anatomy, and Prof. of Gynecology; the latter position he will only fill temporarily.

We read that earache may be quickly arrested by one or two drops of a solution of atropia. A better method of stopping it permanently is to treat the cause of it intelligently and not trust to empirical formulæ of which the above is a sample.

"Why, Cousin Charlie, what are you doing here? I suppose I must call you doctor now, and how are the patients, by the way?" "I don't know how they are by the way, I know none of them ever get as far as my office."—*Life.*

A prominent druggist of this city recently missed from his store about thirty dollars worth of homeopathic pills of all sorts, including nearly the whole list of remedies. It was ascertained that a small boy of the neighborhood had stolen them and distributed them among his playmates as candy. The boys had consumed all but two or three dollars worth, but there had been no calls for stomach pumps or antidotes.—*Indiana Med. Journal.*

DEATHS IN ST. LOUIS FOR THE WEEK ENDING JULY 19, 1884.

Small-pox		Convulsions and trismus	16
Measles	1	Heat stroke	
Scarlatina	3	Apoplexy	1
Diphtheria	3	Other diseases of the brain and nervous system	12
Membranous croup		Cirrhosis of liver and hepatitis	3
Whooping cough		Enteritis, gastro-enteritis, peritonitis and gastritis	8
Typhoid fever	2	Bright's disease and nephritis	
Cerebro-spinal fever	1	Other diseases urinary organs	1
Remittent, Intermittent, Typho-malarial, congestive and simple continued fevers	8	Diseases generative organs	
Puerperal fever		Diseases of the locomotory organs	
Diarrhœl Diseases.		Diseases of the integument	
Under 5 years	22	Accidents of pregnancy and childbirth	
Other ages	4	Congenital debility, malformation, etc	2
Erysipelas		Senility	8
Pyæmia and Septicæmia	1	Surgical operations	
Syphilis	1	Deaths by suicide	3
Inanition, want of breast milk, etc	7	Deaths by homicide	2
Alcoholism	1	Deaths by accident	9
Other zymotic diseases		Execution by warrant of law	
Rheumatism and gout	2	Unknown	
Cancer and malignant tumor	1	*Total Deaths from all Causes*	180
Phthisis and tuberculosis Pulmon	15	*Total zymotic Diseases*	55
Marasmus—Tabes mesenterica and scrofula	15	*Total Consitutional Diseases*	35
Hydrocephalus, tubercular meningitis, etc	1	*Total Local Diseases*	66
Other constitutional diseases	1	*Total Developmental Diseases*	10
Bronchitis	4	*Deaths by Violence*	14
Pneumonia	7	*Unknown*	
Other diseases respiratory organs			
Diseases of the circulatory system	8		
Meningitis and encephalitis	6		

97 under 5 years of age; 157 white, 23 colored.

BIRTHS reported during week, 178. Still Births reported (not included in mortality) 15.

GIB. W. CARSON, M. D.,
Clerk of Health Commissioner and Board of Health.

COMPARATIVE MORTALITY, Second Quarter, 1884.

DEATHS FROM THE 7 PRINCIPAL ZYMOTIC DISEASES.

	Total Deaths	Small-Pox	Measles	Scarlatina	Diphtheria	Whooping Cough	Typhoid Fever	Diarrhœal Diseases
Baltimore	1,980	1	72	37	39	31	30	172
Boston	2,103	1	2	49	65	31	30	54
Brooklyn	3,087	0	24	84	64	44	17	325
Chicago	3,102	2	165	86	131	30	60	199
Cincinnati	1,391	9	0	23	13	73	18	75
New Orleans	2,018	128	105	5	18	16	16	173
New York*	.....	...	....	....	....	....	....	....
Philadelphia	4,873	16	35	177	112	16	156	151
San Francisco	1,238	0	5	1	8	9	29	1
St. Louis†	1,748	0	9	23	64	12	26	145

*No reports received yet.
†Besides 15 deaths occurred at Small-Pox Hospital.

THE WEEKLY MEDICAL REVIEW.

VOL. X. NO. 6. CHICAGO AND ST. LOUIS, AUGUST 9, 1884. TERMS: $3 A YEAR.

THE CHOLERA BACILLUS.—The following remarks on the German Cholera Commission by the Indian Medical Gazette, as quoted by the Medical Record, represents the question as it stands at present:

"A review of the whole evidence brought forward by the German Cholera Commission shows that they have only succeeded in establishing the fact that a peculiar form of bacillus is normal to the intestines of cholera patients; but the exact part which this organism plays in the morbid process is left wholly undetermined. Only a very moderate degree of probability has been made out in favor of this bacillus being the cause of cholera; but the futility of trusting to probabilities and conjecture in an etiological inquiry into cholera is generally well recognized. The problem, therefore, of the causation of cholera still remaining unsolved, it awaits and ought to receive that careful attention which its great importance demands."

It must, however, be remembered that the discovery of the bacillus is one of those strides which constitutes a journey in itself. Whilst it may not help us in the way of therapeutics, what is still better, it may help us wonderfully in that more important question of national prophylaxis.

CUTANEOUS THERAPEUTICS.—A correspondent of the Northwestern Lancet writes: "One very noticeable feature is the almost exclusively local treatment of all skin diseases, except those due to syphilis, and the scrofulous or tuberculous diathesis. Though Kaposi mentions iron and arsenic in his book, I never saw it given or mentioned in the hospital. Scrofulous and chlorotic patients were given cod-liver oil, which was almost the only internal medication which I observed. He says the internal treatment of skin diseases was proven useless years ago in this hospital. He is accustomed also to occasionally express himself very strongly upon the doctrine that tubercle, lupus and syphilis are related diseases. He, as well as Neumann, repudiates this idea in toto. On every reference to the subject he says: 'Gentlemen, lupus is lupus, tubercle is tubercle, and syphilis is syphilis. Any shading of the one into the other does not exist. Syphilitic lupus is nonsense.' Lately he read that Koch claims to have discovered the tubercle bacillus in lupus nodules. He said on coming to the class: 'Gentlemen, if this be so, all I have to say is that it is bad for the bacillus, for it would be proof positive that he is not the cause of specific tuberculosis.' The favorite treatment of lupus is removal of the nodules with the caustic potash stick or a curette, and application of mercurial plaster.

GRAVE VOMITING IN PREGNANCY.—Dr. Horwitz, of St. Petersburg, in speaking of this affection, not of course including the light forms of trouble, says that in observation of 186 cases he has seen it manifest itself sixteen times between the fifth and sixth weeks of pregnancy; thirty-eight times between the sixth and eighth weeks; forty-three times between the eighth and tenth weeks; sixty times between the tenth and eleventh weeks; twenty-two times between the eleventh and twelfth weeks; twice during the seventh month and five times near the end of pregnancy.

He thinks that this form of the trouble is more prevalent among the wealthy than the poor, and more prevalent in France than in Germany or England. He has seen two deaths arising from it, and quotes Dubois as having reported thirty.

The treatment he suggests is: recumbent

dorsal position in the most absolute rest in a darkened room; administration of the most easily digested food; preparations of bismuth internally; irritation over the epigastric region; on the refusal of the stomach to retain any food; rectal alimentation. He speaks against the cauterization of the os uteri with nitrate of silver. As a last resort he counsels the establishment of premature labor, which he has never known to fail in establishing the normal condition of the stomach.

We have no desire to speak lightly about the establishment of premature labor in such cases, but where a persistent uncontrollable attack of vomiting sets in so early as the fifth or sixth week, or a vomiting so uncontrollable that nothing less than the continued dorsal position will relieve it, the desires of the most interested persons should form an important element in determining the course to be adopted relative to the means to be adopted. The interest of the mother is under such circumstances so much more important than the being yet undeveloped that the comparison should not be entertained.

Deaths from Extraction of Teeth.—The Medical Record abstracts from the report of Dr. Zarharevitch two instances of young men, both physicians, dying from the results of the extraction of a molar tooth. One died ten days after the operation from osteomyelitis, and the other six days after from osteitis of the inferior maxilla and septicæmia. It was found that the dentist had not been careful in cleaning the forceps used by him. Dr. Z., moved by these accidents, recommends the employment of antiseptic tooth-pulling. He advises washing the inside of the cheeks with soap and water, and then with a two per cent. solution of carbolic acid. After the tooth has been extracted the mouth should be again washed with the carbolic solution and the tooth cavity filled with a wad of cotton charged with iodoform powder.

Investigations as to the Influence of Bromide of Potassium upon the Economy have been made by B. Schulze, (Zeitschr. f. Biolog. Bd. 19). He experimentally proved that the diuretic action of the salt consists in a direct augmentation of the excretion of water. It is shown to be a fact that the elimination of the salt is greatest, not at the times of most profuse diuresis but subsequent thereto. Bodily temperature and digestion did not appear to be influenced; the excretion of urea showed no material change. However, there was an augmentation of the excretion of sulphur and a reduction of the elimination of phosphorus. The latter fact S. considers due to a lowered tissue metamorphosis in the nervous system.

Herpes Zoster has been pretty generally accepted as due to primary affection of the spinal-ganglia or the Ganglion Gasseri. Recent post-mortem investigations show that a peripheral origin is the cause of the herpetic eruption in many instances. Thus in the Deutche Archiv für Klin. Med. two cases are reported in which the histological alteration of the nerve presented was a peri-neuritis acuta nodosa. Dubler in Virchow's Archiv reports an examination of a patient that died of phthisis and had zoster and intercostal neuralgia on the right side from the seventh to the ninth rib. The cause was ascertained to be a cheesy periostitis of the seventh, eighth, and ninth ribs. The corresponding spinal ganglia were intact. In another case zoster eruption corresponding to the ninth and tenth intercostal spaces was attended by complete degeneration of the ninth intercostal nerve; the spinal ganglion showed minute ecchymoses and the ganglionic cells were somewhat pigmented. The tenth intercostal nerve was partially degenerated in its distal portion corresponding to the seat of the eruption. The balance of it as well as the ganglion were normal. These observations and those of Pitres and Vaillard (Arch. de. Neurol., T. 5) prove that zoster may be of peripheral, neuritic origin.

The Action of Antipyrin is described in the Medical and Surgical Reporter. Knorr, of Erlangen, manufactured it from chinoline,

and Guttman, of Berlin, publishes (Berl. Klin. Woch.) the results of his observations with the new alkaloid in twenty-seven cases of high temperature. The cases experimented upon were as follows: 6 fibrous pneumonia, 6 typhoid fever, 2 scarlatina, 2 febris recurrens, 2 erysipelas faciei, one each of variola, morbilli, pleuritic exudation, erysipelas cruris, and abscess of the arm, and 4 of pulmonary phthisis with continually high fever. The temperature was usually taken in the rectum, in a few cases in the axilla, and generally every hour during the day and every two hours during the night.

The results teach that antipyrin, in the dose of 64 to 96 grains, has a certain and high antifebrile effect, at least lasting five hours, and often much longer. It is best to administer the remedy in two or three doses, each of 32 grains, given every hour in watery solution, to which some corrigens for the taste has been added, or in powder form in wafers.

The temperature sinks continually and gradually, already one hour after the first dose, at least by half a degree, and then goes on falling, until two hours after the third dose; five hours after first, the decline has usually reached its height, and mounts up to 30. Sometimes the effect continnes for eighteen hours. When later the temperature ascends again, it also does so slowly and gradually. The same effect can be achieved by one single dose of 64 grains, and also by five consecutive (every hour) doses of 16 grains each.

Together with the temperature, the frequency of the pulse declines. In cases where the decline in temperature is great, active perspiration is apt to occur. Disagreeable effects were not observed; only in one case vomiting ensued. Generally the remedy was well borne, even in cases where quinine caused emesis. Antipyrin has, therefore, a great advantage compared to kairin. The latter produces its temperature-decline by a rigor; its effect is sudden, and lasts but a short time, when temperature again rapidly ascends. Antipyrin has a similar effect to quinine, but as it is much cheaper, and is generally better borne by the stomach than quinine, its general adoption as an antipyretic, in preference to quinine, can be recommended.

Static Electricity as a Preventive for Cholera is advocated in Le Progrés Médical by M. Romain Vigouroux. From the experiments of Boillot, Angus Smith and Chappuis, it appears that ozone has the property of neutralizing all the germs in the atmosphere and that bacteria readily yield to its destructive influence. Following this hint and combining it with the fact that an electric spark will change oxygen into ozone, the above system was imagined by the author. Certain patients who were subjected to this treatment declared that for several hours, and even until the next day, the odor of ozone persisted in the clothing and upon the skin. He concludes that according to the facts generally admitted upon the prophylaxis of cholera, static electrization daily practiced is a means whose efficacity is very probable. It acts by producing an antiseptic *par excellence*—ozone and stimulates all the functions of the organism and more particularly the nutritive.

The Elimination of Nitrogen and of Phosphoric Acid in Lunatics is the subject of a work by M. Mairet presented to the Société de Biologie of Paris. In the normal state the mean in 24 hours is 1.55 grammes to 2.11 grammes of phosphoric acid. From 6 to 11 A. M. the nitrogen is excreted in a minimum quantity, the maximum being at night. In mania the quantity varies with the periods of depression, remission and convalescence. During the period of excitement there is an increase of nitrogen and of earthy and alkaline phosphates. On the other hand, during depression the nitrogen is diminished, as also the alkaline phosphates, whilst the earthy phosphates are increased. During the period of remission and during convalescence there is a general diminution of all. The author concludes that the elimination of the earthy phosphates is related to the activity of the nutritive changes of the nervous system and that the excretion of nitrogen and of alkaline phosphates is connected with the activity of

the muscular system. In lypemania there is a diminution of nitrogen, an increase of earthy phosphates and a decrease in alkaline phosphates; there is also observed an increase in the white blood corpuscles and often a true leucocythemia. In epilepsy there is no modification in the elimination of nitrogen, outside of the attacks. During the attack, as in the normal state, there is an increase of nitrogen and of the earthy and alkaline phosphates. During the state of vertigo, the nitrogen and earthy phosphates are normally excreted; there is only an increase of the alkaline phosphates. In a therapeutic point of view M. Mairet refers to his conclusions.

Paralysis of Individual Fibres of the Recurrent Laryngeal Nerve.—In Nos. 46, 49 of the Berliner klinische Wochenschrift, (Brit. Med. Jour.) Dr. Felix Simon of St. Thomas' Hospital has communicated an exhaustive paper on the proclivity of the abductor fibres of the recurrent laryngeal nerve to succumb earlier than the adductor fibres, or even exclusively, in all forms of organic disease or injury, central or peripheral, acute or chronic, which concern the motor nerves of the larynx. The general validity of this law he first stated in the Archives of Laryngology, July, 1881. In the papers now before us there are notes of fifty-eight carefully observed cases, with twenty-one necropsies, all of which are in strict accord with the statements Dr. Simon has made. Many of these cases have been under the author's own observation; the remainder have been reported by men of the highest reputation, and, so far, no well-authenticated case has been brought forward which would invalidate his conclusions. The undoubted occurrence of transitory and varying isolated paralysis of the abductors, which, Dr. Simon has always contended, is characteristic of functional disorder of the motor nerves of the larynx in cases of soft lymphatic goitre, is only seemingly contradictory to his teaching, as these paralyses can be explained on the theory of transitory anæmia of certain regions of the brain. The occurrence of an isolated paralysis of the abductors from central causes can only be understood on the assumption that the nucleus of the spinal accessory nerve consists of strictly differentiated ganglionic cells; and the author points out that the proclivity of the laryngeal abductors to succumb to organic disease is not a pathological curiosity, but, as Ferrier has shown in reference to the abductors and extensors of the body, a part of a general law. In conclusion, the author lays great stress on the diagnostic importance of this proclivity. He shows, practically as well as theoretically, that, in pure unilateral paralysis of an abductor, there is no alteration either in voice or respiration, so that, unless a laryngoscopic examination is carried out as a matter of routine in all cases of evident or suspected organic disease of the brain, neck, or thorax, an early and sometimes the only symptom may escape notice; and he claims, under these circumstances, for the laryngoscope the position occupied by the ophthalmoscope in the diagnosis of renal and cerebral disease. If, as it would appear from this carefully exhaustive paper, the foregoing statements are unexceptional, there can, indeed, be no doubt of the extreme importance of this fact in anatomical and physiological as well as in diagnostic respects.

Attacks Upon Physicians have been made in the cholera infested districts of France and Italy as the result of a superstition common among the lower classes of all countries. The belief that physicians and druggists connive to poison the people during the prevalence of epidemics is one of the most curious manifestations of the fever engendered under such circumstances. During the prevalence of yellow fever at Memphis, Tenn., in '78 and '79 the negroes labored under this delusion to a very considerable extent, and at one time there were well grounded apprehensions of a riot on this account. That physicians occasionally kill their patients especially during epidemics, is not improbable, but we are prepared to exonerate them from malice aforethought. The old stories of Jews poisoning wells has its

origin in the same causes; one tale is, of course, as true as the other.

Pepsin is said to be used with success for digesting an accumulation of blood in the bladder.

Two Women, at Leeds, England, were lately convicted for intefering with the coroner in his duty of holding an inquest. The body was that of an infant, and the women cremated the child before the appointed hour for holding the inquest, and thus prevented the officer from discharging his duty. The offense did not consist in the cremation of the child. It needs no use of words to show how injudicious it would be to allow cremation under such circumstances, that is, before an official inspection of the body had been made.

A Case of Death from Septicæmia is said to have occurred in Chicago, following the application of nitric acid for the removal of a wart.

Interesting Statistics.—Statistics are usually supposed to be dry and unentertaining. It is, however, not so when the man with genius enough to interpret them undertakes to exhibit their meaning. The whole address of Sir James Paget before the International Health Exhibition, in London, although largely made up of statistics, is deeply interesting, and must be a source of great gratification to all those who have devoted their attention to the general amelioration of human woe by the institution of hygienic measures. We have had occasion previously to try and show that a large part of the improved statistics in surgical operations ought probably to be referred to the improved hygienic conditions which the last few years have instituted. And the following, taken from Sir James Paget's address, tends to substantiate the idea.

In a remarkable paper lately read before the Statistical Society, Dr. Longstaff says: "One of the most striking facts of the day, from the statistician's point of view, is the remarkably low death-rate that has prevailed in this country during the last eight years." In these years, the annual death-rate has been less than in the previous eight years in the proportion of two deaths to every 1,000 persons living. The average number of deaths has been 50,000 less in the last than in the previous eight years. Doubtless many things have contributed to this grand result, and it is not possible to say how much is due to each of them; but it would be unreasonable to doubt that the chief good influence has been in all the improved means for the care of health which recent years have produced. This is made nearly certain by the fact that the largest gains of life have been in the diminution of the deaths from fever, and of the deaths in children under 15 years old; for these are the very classes on which good sanitary measures would have most influence.

The annual number of deaths from typhus, typhoid, and the unnamed fevers has been about 11,000 less than it was about twenty years ago. The annual number of deaths of children under 5 years old has been about 22,000 less than it was; and that of children between 5 and 15 has been upwards of 8,000 less.

These are large results, and though they tell of only deaths, yet they bear on the chief subject I have brought before you—the working power of the nation; for, however, much we might assign to improved methods of medical treatment of fever, yet the diminished number of deaths means a very large diminution in the total number of cases. The deaths during the working years of life were 6,500 less; and, this being so, we may hold that, if the average mortality was, say, 25 per cent., the diminution in the total number of cases must have been at least 25,000; and if we may believe, as before, that each of these involved ten weeks of sickness, we have, in these fevers alone, a clear saving of 185,000 weeks' work in every year.

And so, with the diminution of the mortality among children, there must have been a greater diminution in the number of costly

and work-wasting illnesses, and a large saving of money that would otherwise have been sunk. And not only so, but many of the children saved in the last eight years will become bread-winners or care-keepers; and who can tell what some of them will become? or what the world would have lost if it had lost them?

Let me add only one more reckoning. In a paper last year, at the Statistical Society, Mr. Noel Humphreys said "that if the English death-rate should continue at the low average of the five years 1876-80, the mean duration of male life in this country would be increased by two years, and that of female life by no less than 3.4 years, as compared with the English life-table." And he showed further that "among males, 70 per cent., and among females, 65 per cent., of this increased life would be lived between the ages of 20 and 60 years, or during the most useful period."

Teeth in Inherited Syphilis.—A. Fournier defines a syphilitic tooth as one whose development has been arrested in the intra-follicular state by syphilis. The results are arranged under four heads (Boston Med. and Surg. Journal) Dental Erosions, Microdontism, Dental Amorphism, Vulnerability. Dental erosions are of many kinds. They consist of a more or less grooved or pitted condition of the enamel. The most important from a diagnostic point of view is the curved border of the incisors, to which the name of Hutchinson is attached. Fournier does not feel quite sure that other diseases may not cause this. (Magitot, in a paper read before the last International Medical Congress, stated that these grooves were caused by eclampsia.) The other erosions are not of much diagnostic value, as many other diseases may produce them.

Microdontism.—This is a diminution in the size of the teeth. It is never a characteristic of the entire denture, and is usually confined to a single tooth standing among well-developed neighbors.

Dental Amorphism.—This shows itself in several ways: (1.) Some tooth, a canine for example, takes the form of an incisor. (2.) Additional cusps may appear; the first molar often has a well-developed cusp on the side. (3.) The incisors take the form of axe blades, the crown being much too large for the necks. (4.) One or more teeth lose their characteristic form, and appear as irregular masses of enamel and dentine.

Vulnerability.—The statements which the writer makes here are too vague to be of any diagnostic value.

Temporary Closure of One Ureter.—It is a matter of great importance to the surgeon (Medical Record) contemplating the removal of a kidney to determine whether the other is healthy and capable of secreting urine. It has hitherto been nearly impossible to determine this with any certainty owing to the difficulty of obtaining the urine of one kidney unmixed with the secretion of the other. The attempt has been made to catheterize the ureter, and has been successful in the case of women after dilatation of the urethra, but in man this is impossible. Dr. Silbermann's instrument consists of a catheter (No. 18 French) provided with a large opening 1⅜ inches long, upon the side, and several small holes at its extremity. The instrument having been introduced, the eye being covered so as not to injure the walls of the urethra, a smaller canula is passed through. This small tube is provided with a rubber ball at its extremity, which, when in position, lies directly in the eye of the catheter. The instrument being so turned that this part lies against the mouth of the ureter, mercury is forced through the inner tube, dilating the rubber ball and effectually closing the orifice. Thus the urine that passes into the bladder can come from one ureter only, and a few minutes will suffice to show whether the corresponding kidney is performing its functions normally. The instrument has been tried several times in healthy individuals and has been found to answer the purpose intended.

THE QUESTION OF THE TRANSMISSION OF TUBERCULOSIS THROUGH FOOD, has been investigated by Baumgarten, of Koenigsberg. For this purpose he fed rabbits with fresh milk to which was added tuberculous material that contained bacilli in large numbers, and he ascertained that a single feed of three to four ounces of such milk was followed within ten to twelve weeks by a pronounced tuberculosis of the intestinal mucosa, of the mesenteric glands and the liver. The more tuberculous material was added, that is to say, the larger the number of bacilli in the milk, the greater as to intensity and extent was the tubercular lesion. Microscopic examination revealed true tubercles, characterized by giant-cells and bacilli,not only in Peyer's Plaques and the solitary follicles, but also in the mesenteric glands and the liver; and corresponding degeneration was frequently found in the lymphatic glands in the neighborhood of the inferior maxilla and along the throat. B. claims thus to have experimentally proven the possibility of tubercular infection through food.

STRYCHNINE PILLS FOR SUPPER.—The following story of native idiocy is its own commentary. Truly the fool-killer has an immense amount of work to perform in this world.

Mrs. Bridget Boyle, aged 35 years, of Philadelphia, while sitting down to supper on the evening of August 1, was observed by the other persons seated about the table to take from her pocket a small box of pills. Selecting one she swallowed it, and a moment later a boarder named Thomas Cowan, aged 22 years, remarked: "Those things wouldn't hurt a person—I can take fourteen of them." This at once turned the attention of all the others on the subject, and each in turn volunteered to take some, all of them, however, being ignorant of the deadly character of the little black balls. Mrs. Boyle counted out fourteen pills and passed them over to Cowen, who gulped them down without hesitation, unmindful of the fact that each contained one-twentieth of a grain of strychnine. Daniel Gallagher, aged 18 years, laughingly agreed to swallow a fist full of the pellets. He was immediately accommodated, and Mrs.Boyle poured into the palm of his hand as many as he could hold. These he hastily gulped down with the aid of a drink of water. Little Annie Carroll, aged 13 years, the hired girl, took nine. Mrs. Boyle swallowed six more, and Mrs.Mary Killey, aged 38, also liberally helped herself. The only other occupant of the house, Mr. Michael Boyle, was away from home at the time. Supper was then proceeded with, but it was not long before all around the table became violently ill. They rapidly grew worse, and the little girl began to scream out in agony. The two women were seized with fierce pains in the region of the stomach, and they, too, added their groans to Annie Carroll's screams. The two young men who had taken more than the third were prostrated in a little while. The noise they made attracted the attention of neighbors, but, although help was speedily secured, the girl died and neither of the women are expected to recover.

A CASE OF BLENNORRHAGIC ENDOCARDITIS is reported by Dérignac in the Gaz. Med. de Paris. A gonorrhœa in a young man of excellent family history was followed in the fourth week by a painful arthritis of the left shoulder. Salicylates were given. Three weeks thereafter there developed with violent fever a purulent endocarditis, which D., without any reference to the agency of the gonococcus, regards as a localization, similar to that of the preceding arthritis, of the gonorrhoeal process.

The British Medical records a death from chloroform. The victim was a druggist, who on two previous occasions came very near losing his life in a similar way. He was found dead in the public park, Glasgow, the bottle of chloroform by his side.

The little controversy between the Medical Record and l'Union Médicale still goes on. In the last number of the latter the editor recommends our esteemed cotemporary to employ better translators so as to obtain correct ideas of what is written.

CONTRIBUTIONS.

A MONSTROSITY.

WM. D. RUHL, M. D., SHELDON, IND.

Since the subject of monstrosities has been brought to my notice through the columns of your valuable journal, I send you herewith a photograph of a monstrosity, which is certainly an interesting specimen. I looked at Simpson and some other books I have, but I find no description of any such case.

The mother of this monstrosity, is a little past 18, having been married about four years ago. She has dark brown eyes, dark complexion and hair, and is of slender form. She has always enjoyed good health, except an attack of malarial fever occurring every fall, but this soon succumbs to antiperiodic remedies. I was called to see the lady February 28th, and found her suffering from a severe attack of parotitis. I prescribed six grain doses of pulv. ipecac et opii every six hours; also an external application of camphorated oil three or four times a day. After remaining quiet for a few days, she made an excellent recovery. This was about the end of the sixth month of utero-gestation.

The next time I visited her, on May 28th, was to attend her in confinement. Arriving at her residence at 10:30 P. M., I learned that she had enjoyed perfect health during the whole period of gestation, with the single exception of the attack of parotitis above mentioned. The first examination I made per vagina, found the os undilated; an hour later the os was dilated about the size of a half-dollar. An hour after this I diagnosed a knee presentation.

Labor pains were very weak and infrequent. I gave a twenty-grain dose of sulphate of quinia and had her feet bathed in warm water with the hope of increasing the frequency and strength of the pains. The labor progressed in a singularly slow and tedious manner, the pains being very weak and recurring only every twenty-five or thirty minutes. An examination at this time (4 A. M.) failed to reveal the obstruction, though the right elbow was found and brought down. With every pain slight progress was made, notwithstanding the fact the obstruction increased. Death of the child (or children) took place when it had emerged as far as the umbilicus, I am inclined to believe, from pressure on the cord. At 5 p. m. I made forcible traction, but the progress of the child became more and more difficult; then forcibly passing my finger by the side of the child and making a thorough examination, I discovered the presence of a monster with two heads and necks. After using very forcible traction with slight progress I concluded that embryotomy would have to be resorted to; I called Dr. John I. Metts, of Ossian, to assist me. In the meantime I continued my efforts to accomplish delivery without embryotomy, and, by persistent and forcible traction I succeeded in bringing the two heads through the pelvis by the time Dr. Metts arrived. He kindly assisted me in completing the delivery, which was accomplished at 8 A. M., May 29th. The placenta (a single one) came away with the fœtus. A bandage was put on the woman (as is the fashion), and quina sulph. four grains, and pulv opii one grain was given every four hours. She was very weak and excited. I visited her at 8 P. M., and found her doing well, with the exception of a slight rise of temperature (100° F.). May 30th—had a good night's sleep and is much improved. May 31st—says she feels well enough to sit up—feels much better than after her other confinement. I moved her bowels with oleum ricini. She has a bright little boy two years old; this is her second confinement. In giving an anatomical description of this *Lusus Naturæ*, I can give no better description than that of Geo. W. McCaskey, M. D., a prominent physician of Fort Wayne, who made a special examination of the case. He says: "There are two heads symmetrically formed and well developed, neither presenting any peculiarities. Each head is supported by a well-formed neck, which is distinct down to within a short distance of the collar bone, where fusion takes place, and from this point downwards the appearance is pretty much that of a normal body, with the chest a trifle large. There is but one collar bone and one scapula upon each side of the complex body, each of which seems to have the usual conformation; there is but one breast bone, with the usual set of ribs upon either side, thus forming but one thoracic cavity. It is probable that there is but one set of lungs, and that the tracheas inosculate near the point of the fusion of the necks, and again bifurcate; or each "windpipe" may pass to the lung of the corresponding side. The alimentary canals probably unite at about the same point, as there is no evidence of more than one canal in the lower part of the body. The facts, however, with reference to the respiratory and digestive organs, could only be definitely settled by a dissection, which, unfortunately, could not be obtained.

The dorsal region of the body presents numerous departures from the usual structure. There is a single spinal column attached to each head in the usual manner, and presenting no peculiarities until after the fusion of the necks, from which point, or just below it, they pass downward in close proximity to each other as far as the sacrum, which is imperfectly developed though probably distinct upon two sides. The two spinal columns lie so close together that the transverse processes, or lateral projections, which are normally present upon the sides of the individual bones, feel as though they had grown

together. Thus, there are probably two distinct spinal cords, each one giving off the nerves for the limbs of its own side, instead of the usual arrangement of a single cord with branches or roots upon each side for the same purpose. In other words, there are two distinct central nervous systems, the distribution of the nerves from the lower part of which could only be determined by dissection.

There is but one umbilical cord, and the lower part of the body presents nothing unusual, so far as appearances are concerned, with the exception of a hernia; the external appearance of the child, aside from the abnormalties of structure mentioned, is that of health. Its death may have been the result of some malformation of its internal organs. The weight of the child was nine and one-quarter pounds, circumference of chest thirteen inches, measurement around the two heads placed side by side eighteen and one quarter inches. Altogether the monstrosity is one of the most remarkable character, and a thorough study by a competent anatomist would be of great value to science.

I asked the lady if she had received any shock or fright during her gestation, or if she had looked at anything repulsive. She answered in the negative. She is a very intelligent lady, very susceptible to impressions.

This subject of monstrosities is rather an obscure one and I do not intend to offer a theory in explanation.

A CASE OF UNIVERSAL ECZEMA.

BY A. H. OHMANN-DUMESNIL, A. M., M. D., OF ST. LOUIS.

Professor of Skin Diseases and Syphilis of the College of Physicians and Surgeons.

On March 25, 1884, Mrs. B., æt. 35, about 5 feet 5 inches in height, good general appearance, applied to me for treatment. A physician of this city sent her to me, having had the case under treatment for nearly three months, without producing any beneficial effect as far as he could see. When I examined Mrs. B. she had a papulo-squamous eczema distributed over the chest, back, both arms, neck, abdomen, thighs, legs and feet. The palms of the hands and soles of the feet were also affected to a large degree.

The disease was in a somewhat subacute stage and the itching characteristic of this affection was present to a marked degree. The face was free, but about to be invaded, and this caused great uneasiness in the patient's mind. The bowels were obstinately constipated, the other functions of the body being normally performed.

The prognosis given in this case was favorable as to ultimate cure, but was in some degree qualified as to the duration of treatment, the patient being warned not to become impatient, as these cases are very slow to improve. Suitable laxatives had been already prescribed by her former physician and she was ordered to continue their use. She was then ordered to take a bath every alternate day, the water to contain some borax and mucilage made by placing flaxseed in hot water and macerating.

In addition to this I prescribed an ointment containing oxide of zinc, chloral hydrate and cold cream to be applied daily to the affected parts. Furthermore a plain diet and the exclusion of all alcoholics was enjoined.

On March 28, the patient reported herself as feeling better, and the same treatment was continued.

On April 1st the patient had occasion to complain of the itching. It was becoming more marked. Salve was ordered the same as before with the addition of a small amount of sulphate of morphia. To this was added another medicine. Four drops of Fowler's solution of arsenic was ordered after each meal, and this was all borne and acted very well.

On April 4th a great improvement was reported in the subjective symptoms. The lesion has also improved in appearance,and altogether the case progressed very satisfactorily.

On April 16 the entire eruption presented marked signs of improvement with the exception of some scattered areas of small extent which appeared indolent. For this some stimulation was deemed necessary and a solution of beta naphthol (Merck's)of the strength of seven grains to four ounces, alcohol being the menstruum, was ordered to be applied and the salve immediately thereafter. This acted excellently. Some of the inguinal glands were observed to be smaller and a belladonna ointment was ordered.

On May 3 the patient reported herself as feeling in good condition and everything progressing favorably.

May 13th I saw the patient for the last time. The skin was perfectly normal everywhere.

REMARKS.

The chief points of interest was the short duration of the disease, the simplicity of treatment and the great efficiency of arsenic in small doses to allay itching. In regard to this latter point I have repeatedly employed Fowler's solution for this purpose, and with good success. Of course the chloral hydrate and morphia in the ointment made a considerable impression on the end nerves and thus aided the action of the arsenic.

Besides this I wish to observe that borax is an excellent adjuvant. My attention was directed to this remedy by reading Dewee's use of it in pruritus vulvæ, in which he employed it with great success. I have found that borax alone, with suitable internal remedies, is in many cases an excellent treatment for some mild attacks of eczema.

The Lancet reports a patient who fractured three ribs from muscular action.

PUERPERAL ECLAMPSIA.

BY J. O. CARTER, M. D., LINCOLN, NEB.

Convulsions at the parturient period are fortunately not common. When they do occur, however, they are so alarming, and the needs of relief so pressing, that I have thought it well to give the profession the benefit of the following case:

If we consider the alarming fatality of this malady, all the more importance attaches to any light that may be thrown upon the subject. According to the statistics given by Lusk, one-eighth of all deaths that occur at parturition are due to puerperal convulsions, nearly one-third of all the cases proving fatal.

Mrs. B., aged 22—primipara—was delivered of a healthy female child at 2 o'clock, A. M., May 16, 1884. She was attended by a midwife who had been with her during the night and was still there upon my arrival at the bed-side at about 7 o'clock, A. M., when I found the patient unconscious and partially comatose. I was told by the husband that a severe headache had set in during the evening, which grew in intensity until 4 o'clock in the morning, when she was seized with convulsions. Upon my arrival, three hours later, I at once administered sixty grains of the hydrate of chloral per rectum, and thirty minutes afterward I gave by the stomach forty-five grains of the bromide of potash. This was followed up by the free use of chloroform, but the convulsions persisted in returning with great violence every fifty minutes.

Dr. Lowry was called in consultation at 11 o'clock, A. M., when a third of a grain of the sulphate of morphia was administered subcutaneously.

The chloroform treatment meanwhile having been persisted in, was continued without, however, controlling the convulsions.

The seizure being post-partum and the woman not plethoric, venesection was not resorted to. At ten minutes past 1 o'clock, P. M., the patient had an alarming convulsion. A third of a grain of morphia was injected into the arm, and ten minutes before the time for the next attack she was thoroughly put under the influence of the anæsthetic, and kept so for half an hour. There was no return of the spasms.

Her temperature at this time was 105° with a pulse of one hundred and thirty per minute. The patient had passed into profound coma and complete unconsciousness.

She was put on the bromide of potash and

at 11 o'clock the next day—after a period of thirty hours of unconsciousness—returned to the full power of her mind, without, however, the slightest recollection of the perils through which she had passed. The patient subsequently did well, and her recovery, though somewhat protracted, has been complete.

It is a matter of regret, that there was no examination made of the urine. It is impossible to say whether there was albumen or tube-casts; but as there was no swelling of the feet or ankles and no puffiness of the eyelids or face, and no suppression or even diminution of the urine, the non-existence of kidney complications may at least be inferred.

OCULAR IRRITION A CAUSE OF NASAL AFFECTIONS.

BY F. LAURENCE MILES, M. D., ELKHART, IND.

That ocular irritation, especially the form due to errors of refraction and accomodation may cause reflex disturbances of the nervous system, and thus produce many forms of headache, dizziness, neuralgia, peculiar sensations in the head, and not infrequently gastrtc, cardiac, spinal and other neuroses, is undeniable. Since the attention of the profession was first called to this subject some ten years ago by Dr. S. Weir Mitchell many such cases have been reported in medical journals. But that it may, and often does, exert a decided influence in the production of nasal disorders has not, to my knowledge, been hitherto observed.

Among one thousand and sixty-four cases of functional nervous affections in which the influence of eyestrain was carefully investigated, and of which a large proportion were treated wholly or partially by neutralizing the ocular defect with suitable lenses, three hundred and fifteen were examined in regard to nasal affections. Of these one hundred and seven cases were found to sneeze more frequently than usual; as for instance, on going from the dark into the light, on going from the house into the sunshine, when glancing at the sun, a clear sky or bright object and often without apparant cause. Many were or had been, much given also to nosebleeding, catarrh and some to itching or tickling sensations in the nose. In nearly every such case examination revealed errors of refraction. That ocular irritation was a common cause of these disorders is probable from the fact that upon correcting the ametropia with suitable lenses the usual tendency to bleed, sneeze, etc., was often either entirely, or in a great degree, removed, and especially when associated with asthenopia and headache.

The following are a few cases, not at all exceptional in my experience, which illustrate not only the influence of ocular irritation in the production of nasal, but also many other maladies. Though at the risk of being thought an enthusiast, if not worse. I do not hesitate to state my conviction—founded on nine years careful study of the subject, and the treatment of not less than one thousand cases with spectacles—that the discovery of ocular irritation as a source of functional nervous diseases will form an epoch in the history of this class of affections; and will be the means, when fully appreciated, of speedily curing many cases which have hitherto defied the highest skill of the profession. I do not, however, wish to be understood as inferring that to successfully treat cases requiring spectacles—is always an easy matter; on the contrary it often calls for the greatest skill and patience of an oculist accustomed to adopt lenses, not for the purpose of giving the highest degree of vision, but for detecting and removing the cause of ocular irritation.

Case I. O. R., æt. 18, occupation papermaker. Consulted me first in June, 1877. For twelve years he had been subject to a dull pain and pressure in the temples, brows and eyes, which he attributed to catarrh. Two years before became a night-operative in a tissue-paper-mill; which caused an in crease of the headache and much dizziness. The eyes were weak; examination revealed hypermltropia, which, with atropia, was corrected by $+\frac{1}{42}$ s. $\frown +\frac{1}{48}$ c. axis 90° in each eye, Vision $\frac{20}{XX}$. Spectacles were prescribed for the purpose of removing the headache and asthenopia. This condition immediately improved. A month later his father informed me that frequent and prolonged paroxysms of sneezing, to which he had been subject since he was eight years old and during which he would sneeze from thirty to sixty times in succession, had entirely ceased, as well as reported attacks of nosebleeding. After the expiration of five months could remember of having had but one paroxysm of sneezing, no nosebleeding, very little headache, dizziness or athenopia.

Case II. Dr. C., æt. 40, dentist. Consulted me March, 1878, for blurring and pain in the eyes. Had no headache or dizziness. During the preceeding four years had frequent and severe paroxysms of sneezing—at least once a week. Each attack would con-

tinue about twenty minutes, during which his eyes and nose would discharge freely. Vision $\frac{20}{XX}$; though the eyes would soon tire in reading and fine work. Eyes hypermetropic. Convex lenses $+\frac{1}{30}$ s. neutralized the manifest ametropia. Glasses were prescribed to be worn constantly while in the office. Experienced no further difficulty with his eyes and during the next six months had but one paroxysm of sneezing. Has seldom had an attack since, though he is now wearing $+\frac{1}{12}$s. to correct the combined hypermetropia and presbyopia.

Case III. S. P. W. æt. 34, telegraph operator. Examined March, 1881. Had been subject to sick and nervous headache for nineteen years, during the last fifteen years the pain had been nearly continuous. At first it was chiefly frontal but the last few years it has been mostly occipital. For years he has had catarrh with considerable discharge and pain between the eyes, which are weak; physicians had informed him that the weakness was due to the catarrh. Had fallen several times from attacks of dizziness. Hard work (with the eyes) would render him extremely nervous, and produce numbness in the left side of head and body. After the use of atropia, vision in the right eye was $\frac{20}{XL}$, with $+\frac{1}{72}\bigcirc\frac{1}{36}$ c. axis 170°. Vision $\frac{20}{20}$. Vision in left $\frac{20}{70}$, with $+\frac{1}{60}$ s.$\bigcirc\frac{1}{30}$c. axis 10°. Vision $\frac{20}{20}$. After wearing spectacles a month reported almost entirely free from headache, dizziness, numbness and asthenopia. The catarrh gradually improved and in six weeks stated that it had disappeared. May 1882, reported his health much better than for years, and was weighing more than ever before. No pain between the eyes, no catarrh and seldom has a return of any of his former troubles. Occupation unchanged. Had repeatedly observed the use of spectacles in such cases to causes on marked improvement in the general heath.

Case IV. H. S. M., æt 35. operator in a paper-mill. Applied for treatment March, 1878. Stated that he bad been subject to sick and nervous headache frequently for twenty years. During the last year had pain in the head daily; it was chiefly frontal and was attributed to catarrh. Thought he often sneezed as many as twenty times a day; looking at the sun or a clear sky would commonly cause it. Was often dizzy. For twelve years had bled at the nose frequently; at least over a month, and sometimes very profusely. Eyes were quite weak, could not read long at night. Vision $\frac{20}{20}$. Total ametropia was corrected by $+\frac{1}{30}$ s.$\bigcirc+\frac{1}{48}$c. axis 90° in each eye, giving Vision $\frac{20}{20}$. Experienced immediate and marked benefit from the use of spectacles. Several months afterwards stated he very rarely was troubled with headache, had no dizziness, seldom sneezed even while looking at the sun, had had but one slight hemorrhage and little if any catarrh. No change of occupation.

Case V. Miss M. L. E. æt., 21, teacher, applied for treatment December, 1883. Case similar to preceeding; weak eyes, headache, dizziness, faints easily, neuralgia in sides of head and face, sneezes very often, especially in going out of the house into the sunshine; looking at the sun would usually cause it. For a year or more had been troubled almost constantly with itching in sides of the nose. Reading would cause drowsiness. Vision $\frac{20}{20}$. Manifest by hypermetropia $\frac{1}{36}$ s. Spectacles gave immediate relief. June 18, 1884 reports her general health better than for years. Does not remember when she last had a headache or dizziness. Very seldom has any itching or sneezing. Has worn her glasses but little of late, and yet has no return of her trouble.

With the exception of the last case, no internal remedies were given, and in this one the treatment was for malaria. I do not, however, desire it to be understood that internal treatment is without value. It can undoubtedly be employed in many cases with the greatest benefit. As refractive errors often exist without producing apparent ocular or nervous irritability, able physicans have contended that its influence, if it has any, in causing neurosis is much over-rated. Ocular irritation, it should be remembered, is usually but one of several factors necessary to to the production of these diseases. And as decomposition may be prevented or arrested by eliminating either of the factors essential to its existance, heat or moisture, so many nervous disturbances, in which ocular irritation is one of the principal cause, may be prevented or cured by the use of lenses, alone, which remove such a cause, or by means of rest and medicine which strengthen the nervous system or lessen its susceptibility to reflex action. Yet in the latter instance, the intelligent use of lenses renders the results of treatment in the great majority of cases more certain and speedy. In fact, of all the remedies usually employed in the treatment of functional nervous diseases, prolonged experience teaches me that those which remove the ocular irritation, usually unsuspected by the patient, are, especially in cases similar to those described in this paper incomparably themost efficacious.

THE CARE OF THE LOWER LIMBS AND FEET.

By C. H. Hughes, M. D., St. Louis.

The effects of surface impressions in certain organs, such as the brain and spinal cord, are quite familiar to physiologists and physicians, and the fact of "taking cold," as it is commonly called (especially in the head), from damp feet and exposure, is well known, but the philosophy of it is not so generally understood, and by most people, the importance of the subject is not fully appreciated.

M. Animus, a distinguished French physician and physiological experimentor, observed that on electrizing the great sciatic nerve* certain interesting changes took place in the brain by which sleep was induced. Excitation of this great nerve, or of its direct terminal branches in the feet by electricity, also influences the general circulation and blood pressure in the human subject and if the ears of a rabbit are examined during a like electrical excitation of the sciatic nerves, their circulation will be found to have been sensibly changed. A certain nervous mechanism, too, exists in the back part of the neck called the cervical sympathetic ganglia which exerts a controlling influence over the circulation of the blood within the brain. But the discussion of the latter nervous arrangement is not specially relevant to our present subject.

This curious fact of the electrical excitation of the cervical sympathetic is, however, duly considered by physicians specially skilled in the nervous system, in the treatment of certain diseases of the brain, just as the influence of sciatic excitation is taken advantage of, to control conditions of the circulation within the brain.

They are also of advantage from a hygienic or health preserving point of view. A draught of air striking the back part of the neck is especially liable to produce a cold in the head, but a cold and damp draught of air coming in contact with the lower part of the spine, the thighs, hips, calves of the legs or soles of the feet, especially endangers the taking of cold in the head or throat.

Certain grave affections of the spinal cord or brain of a paralytic character, too, are often caused by prolonged exposure to cold and wet combined. The spinal cord or brain may become congested in consequence of their unfavorable peripheral impressions and the state called sclerosis or hardening takes place. If this occurs in a certain part of the spinal cord the condition known as loco-motor ataxia, an almost incurable affection, takes place.

The practical hygienic or health preserving deduction from this great fact, that peripheral or surface impressions influence the central parts of the nervous system and through it various internal organs, is to keep the surface temperature of the body equable and the feet especially free from violent impressions of wet and cold. The feet should be kept warm, because they are prone to get cold easily; the head should be kept moderately cool, because being near the heart and better supplied with arterial blood than any other part of the body, it is particularly liable to get over-heated and to be easily affected by atmospheric conditions, both through its circulation—controlling nervous system in the neck and feet.

The baring of the calves of children's legs or clothing their feet too lightly in inclement weather is dangerous and wrong. Naturally the long back hair of children, which is seldom interfered with by fashion, protect the sensitive back part of the neck, but the follies of fashion have not always justly regarded their little limbs and feet.

The fact of peripheral impression is also intimately associated with the interesting phenomena of reflex irritation. A surface impression distant from a central part, excites changes in the nerve centre and a certain expression usually in action. The acts of swallowing, laughing and sneezing are of this character. An impression is made at the terminal extremity of certain fibres of a nerve (called afferent) and transmitted to its contral termination. The response immediately comes back in a swallow, a laugh, a sneeze, through other nerve fibres (efferent) because of the effect elaborated at the central end of the nerve and transmitted outward.

A certain change takes place, just as it does in neuralgia or where a limb is diseased and the change may remain after the nerve is cut or the limb is taken off. This fact explains why sensations sometimes persist after these parts have been severed and the person for instance may feel that his foot hurts after it has been buried or that the stump of a limb pains after the diseased part has been removed. In these instances central disease has been set up by transmitted peripheral irritation from the affected limb. The secondary disease in the

*The chief nerve of the thigh and leg and largest nerve of the body, which arises from the lower part of the spinal cord between the two lower lumbar; and three or four sacral vertebrae or back bones, the outer and back part of the thigh to be divided into the principal nerves of the leg and feet and passes down.

spinal cord is not removed at once by the removal of its original source in the amputated limb.

This fact of the effect of peripheral irritation upon central conditions is also important for the consideration of those persons who, thinking to be their own physicians, resort thoughtlessly or to excess to what is called medicinal massage or the vibratory motion cure, a remedy which unskillfully or injudiciously used, is capable of doing great harm, to those delicate nervous centres which are so sensitive to violent peripheral impressions. Neither the criterion of ones own feeling as to the agreeableness of the treatment, nor the advice of a proprietor of a movement cure, unless he be a reputable physician thoroughly skilled in the nervous system, is a safe "guide to health" in this matter. The great sciatic nerve has been stretched with benefit and its stretching has also resulted in the death of the patient from inflammation of the nerve and spinal cord.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

REPORTED FOR THE REVIEW.

Stated Meeting, June 28th, 1884.

Dr. Watkins.—I will report

A Case of Trismus Neonatorum,

not that there is anything particular about the case except that it got well. According to the best authorities on diseases of the nervous system, such cases almost inevitably die. I attended a lady in labor, a primipara, about 28 years of age, with a very large child. The labor was so protracted that I was upon the point of terminating it instrumentally, although I was glad afterwards for certain reasons that I did not. The child in about six hours after birth presented the usual symptoms of trismus, convulsions and the general concomitant symptoms. The convulsions continued about three days and a half before there was any cessation; they would recur at intervals of from half an hour to three hours, depending upon the surrounding circumstances. A puff of cold air, or the least movement of the bed-clothing would induce a convulsion. I was rather perplexed, and preferring not to give the infant medication before it had nursed, I waited until about the third day had passed; at that time the child commenced to get some nourishment. I sent for Dr. Hazard in consultation, and at his suggestion we gave bromide of potassium and chloral hydrate, a grain of bromide, and half a grain of chloral every three hours; there was a marked cessation of the convulsions and a gradual improvement in the case. I mention the case on account of the rarity of recovery, nearly all dying according to the best authorities I have consulted.

Dr. A. Green.—The case which Dr. Watkins relates is a rather remarkable one. In the first place, trismus neonatorum is generally a fatal disease, but what is more remarkable than that is that the child improved without medication, so as to take nourishment after three days illness; that is very remarkable indeed. I once saw a child which had trismus about three days after birth; I medicated that child immediately. I told the family: "You needn't expect anything, because patients with this trouble usually die, but I will try my best." The child began to get well; it was better in a few days and I thought the worst was over, when I noticed that there was a little capillary bronchitis, and I said to the mother, "Madam, don't expect much yet, for the present disease is very dangerous." But the child recovered.

Dr. Wesseler.—Two years ago I was called to see a child that the mother stated was dying, and I apprehended it myself; but I gave chloral hydrate. I do not remember the exact dose. I think, however, it was a grain or more repeated every two hours. The child was five days old. To my surprise it got well. It was the first case of the kind that I had attended that recovered.

Dr. Atwood.—What ailed the child?

Dr. Wesseler.—Tetanus—trismus. The child ceased to nurse, became blue in the face and presented the usual symptoms of trismus neonatorum. I afterwards attended another case: this was also on the third day, and it also recovered. Since that time I have seen cases of the same character that didn't get well. The same treatment was adopted, so that I am not sure that the remedy is going to cure all cases.

Dr. Watkins.—Dr. Green is surprised that an infant should have convulsions for three days and live through them without medication. That brings up the question of the propriety of medication in a child that has never nursed, even if trismus neonatorum be present; it looked to me as if it would be a great deal better not to medicate until some nourishment had been taken into the infant's stomach; it appears to me as if the absorbents would act much better and the remedy employed would produce better results.

Dr. A. Green.—I differ with Dr. Watkins.

I think we can medicate an infant a few hours old; I have done it, and they have gotten well. In treating infants we have to take the age into consideration. If we are to expect anything from rational medication we may expect the same result in a child that hasn't taken anything at all as in any one else, and if it is no benefit we should give up medication altogether. I make a difference between convulsions that accompany the tetanus and trismus neonatorum itself. In trismus neonatorum there are often no convulsions at all, if external irritations are kept off. I medicated one of my own children when it was only one hour old. I had consultation in the case, and my consultant considered it dangerous; but I persisted in the treatment and the child got well. Of course the treatment must never be more dangerous than the disease, but if the disease is actually more dangerous than the treatment we have reason to expect a good result.

Dr. Watkins.—Are there no convulsions accompanying trismus?

Dr. A. Green.—We have a great many cases of trismus without any convulsions at all. It is really tetanus, and the convulsions have nothing at all to do with it, they are reflex actions caused by even the slightest irritations.

Dr. Watkins.—In answer to the doctor I will state the question: Here is a case with decided symptoms of trismus, a peculiar condition of the facial muscles, etc., that goes to constitute a case of trismus in which a slight puff of air, or the disarranging of the bedclothes, throws the child into convulsions; during the interim the child presenting the appearance of trismus; any slight handling of the child serving to bring on the convulsions. I would simply ask whether these convulsions do not grow out of the trismus?

Dr. A. Green.—It is more like a case of mere convulsions of a reflex character. I know that a great many cases of trismus neonatorum are not accompanied by convulsions. Though the tetanus itself does not consist in a continued spasm, but the reflex actions are so short that they are barely noticed.

Dr. Pollak.—How did you administer the medicine—per os?

Dr. Watkins.—Per os.

Dr. Pollak.—How did you get it down if you couldn't open the child's mouth?

Dr. Watkins.—I took a teaspoon and gradually worked the medicine down.

Dr. Pollak.—I have never succeeded in my life in separating the jaws in a case of trismus.

Dr. Watkins.—We succeeded in this case.

Dr. Pollak—Then it was not trismus.

Dr. Watkins.—That is a question; you did not see the child; you do not know whether it was or was not. There was great rigidity of the mastoid muscles, so much so, that it was with difficulty that we separated the jaws and got the medicines into the mouth; that method is very difficult, I suppose, in a case of adults.

Dr. Mudd.—It is entirely unnecessary to force open the jaws in order to administer medicine; in tetanus the medicine will be swallowed without opening the jaw; the fluid will pass outside the teeth or alveolar arch and to the pharynx by entering back of the alveolar arch.

Dr. Wesseler.—I gave the hydrate of chloral in simple syrup in ten drop doses, each dose containing one grain; that is my recollection.

Dr. Atwood.—As the subject of trismus naturally suggests that of convulsions, I have a report to offer which may provoke discussion and prove of interest. It refers to the result of

Poisoning by Strychnia.

I, with Dr. Homan, was called to see a man reported to be dying of strychnia poisoning, and found the patient in continuous spasm, with complete trismus. As we could give him nothing per os, we administered morphia and atropine hypodermically, half of a grain of morphia and 1-100 of a grain of atropine. This was followed with chloroform inhalations, and in the course of fifteen minutes the convulsions ceased, the muscles of the jaw relaxed and the man could converse; he was clear in intellection, and stated that he had taken three grains of the drug. This was at five o'clock, p. m., and I should have mentioned that the strychnia was taken at one o'clock, p. m.—He stated that he had wasted none of it; had taken it with suicidal intent, and gave his reasons for wishing to take his life. We left, and at eight o'clock I returned to find him improving, but in a few minutes he again went into spasm, and the same phenomena supervened that had already been witnessed, except that they were intensified. I immediately repeated the detailed treatment. The convulsions again relaxed and he assumed more favorable conditions. Dr. Homan arriving, we remained with him till eleven o'clock, p. m., when, without repeating the hypodermic injection, we gave a 30 grain dose of bromide of calcium and of chloral hydrate and left him. In the morning of

the next day he had a little muscular soreness, otherwise he was entirely well. Three grains of strychnia is considered an almost necessarily fatal dose, and the treatment in this case was attended with remarkable success. There is no chemical antidote for the poison and our treatment was simply to antagonize effects. There was no call for emesis, it could have been of no service.

Dr. Pollak.—You say you gave him bromide of calcium?

Dr. Atwood.—I prescribe bromide of calcium in preference to bromide of potassium; it is more easily digested.

Dr. Hughes.—Chloral is the best antidote for strychnia; I would be inclined to attribute the final result in this case to the chloral hydrate. The tendency of tetanic spasm is to come and go, and chloral is antispasmodic. I have recently seen, in some of the journals, instances reported of strychnia counteracted by the administration of chloral hydrate, and I think it is the safest plan to pursue where the strychnia cannot be evacuated from the stomach, to use a full dose of chloral hydrate as soon as possible. As for the bromide of calcium being a less irritating and more digestible agent than the bromide of potassium, my experience controverts the statement made by Dr. Atwood. I have used a great deal of bromide of calcium and I have found it to be a more irritating agent. The bromide of sodium is the least irritating of the bromides. Does the doctor mean bromide of calcium?

Dr. Atwood.—I said bromide of calcium.

Dr. Johnston.—Years ago, before the railroads crossed the Apennines, the monks of St. Bernard had trained dogs for bringing in belated and frozen travelers, and the story goes that on one occasion one of these belated travelers was brought in very nearly frozen, and when he got near the fire, his hands being cold, he commenced blowing and rubbing them; after awhile, supper came on, and the same gentleman commenced blowing his tea to cool it; therefore, the monks said he was possessed of the devil, because he could blow hot and cold out of the same hole. I do not intend criticising a part of the practice presented by our friends, for it is common with the profession. If we were to see a case that has been poisoned by some form of opium we use belladonna. It is said to counteract or overcome the poisonous effects of the opium on the nerve centres. Now Du Jardin-Beaumetz says that atropia is an antidote to morphia; therefore I think that if the gentleman had left out the atropine he would probably have had a better success, because if one is antagonistic to the other he lost the effect of both. It may be argued in this case notwithstanding that the true effect of the morphia is to dilate the arterioles of the brain. Then another argument will be brought in that the force of the atropine is not spent in counteracting the effect of the morphia at all, that perhaps it constringes or congests the arterioles of the spinal column, and therefore would have an effect in that way. The doctor refers to lager beer; in my opinion lager beer is a splendid antidote for strychnia, because if a man is full of lager beer or alcoholic liquors of any kind it certainly arrests the disintegration of the nerve tissue; it arrests the evolution of brain action, there is no burning of brain tissue and it is a fine anti-spasmodic, therefore it is possible that the recovery of this man may have been dependent upon the quantity of beer he had drank. The bromide of calcium, the bromide of sodium, the bromide of potash according to the best writers act very nearly in the same way by constringing the arterioles of the brain and checking the brain action, so that it would be a mere choice between them. Also the chloral hydrate acts very much the same way by constringing the arterioles of the brain and stopping the nerve action; we therefore have a choice between these remedies as to which we should use, or whether we should use them in a shot-gun prescription.

Dr. Wesseler.—We might ask whether this man was not suffering from catarrh of the stomach. We find many men who drink large quantities of beer, and especially cold beer, suffer from a catarrhal condition which prevents absorption, and the man's life was probably saved because the stomach didn't absorb sufficient of the poison; the man was an old drinker and a constant drinker, and I should be very much inclined to that opinion. If you have ever treated a man with delirium tremens you know how long it takes to put him under the influence of opiates.

Dr. Atwood.—There is no history in this case of catarrh of the stomach; the man was well nourished, a very large athletic individual and he was fully under the influence of the strychnia, which, no doubt, had all been absorbed, as was evidenced by the convulsions which were repeated and were of a very severe character. I do not agree with Dr. Johnston in his statement in regard to the antagonism of the remedies which were administered. They are proper drugs to combine for the purpose of overcoming the effect of strychnia.

[TO BE CONTINUD.]

SOUTHERN NEW MEXICO MEDICAL ASSOCIATION.

An organization of the Physicians and Surgeons of Southern New Mexico was effected at Las Cruces, July 17th, at which were present representative physicians from the counties of Daira and Socorro, Sierra, Grant and Lincoln. After the usual routine of business had been completed the following officers were elected for the ensuing twelve months: President: Dr. O. H. Woodworth, Las Cruces; 1st V. Pres., Dr. C. H. Brown, Ruicon; 2nd V. Prest., Dr. C. G. Duncan, Soccorro; Secretary and Treasurer, Dr. James P. Booth, Las Cruces; Board of Censors: Dr. J. V. Cowan, Organ; Dr. Jesse W. Thompson, Kingston; Dr. Jno. Fraser, Las Cruces.

The president appointed the following committee: Materia Medica, Therapeutics and New Remedies, Dr. C. A. Brown, Rincon; Surgery and Anatomy: Dr. W. J. Nickerson, Silver City; Obstetrics and Gynecology: Dr. Edwin Burt, Organ; Epidemics, Climatology and Practice of Medicine: Dr. Lewis Kennon, Silver City; Essayist: Dr. Jesse W. Thompson, Kingston.

The following resolution introduced by Dr. Booth together with the adoption of the Code of Ethics of the American Medical Association by this Association, will serve to show the praiseworthy determination of this new organization.

"WHEREAS, The elevation of the profession is the ultimate object of all Medical Societies, and

WHEREAS, Nothing will so certainly conduce to this desideratum as a higher standard of education; be it therefore

Resolved, That this organization heartily approve of and endorse the three term plan recently adopted by many medical colleges throughout the United States, and be it further,

Resolved, That we deem it our imperative duty to discourage the study of medicine by those who have not received a good common English education and acquired a sufficient knowledge of the Greek and Latin languages to pursue their studies intelligently.

Although no papers were expected, Dr. Thompson, of Kingston, reported two cases of fracture, one of the lower jaw, the other of the astragulus. The latter case was made the more interesting by the exhibition of the fractured bone. The same gentleman also read a very elaborate and well-prepared paper on "Mountain Fever."

Dr. Cowan, of Organ, reported a very singular case, of probably hystero-epilepsy and asked for aid from the other members, promising to carefully watch the case and report final result at the next meeting.

Dr. Booth introduced the following resolution:

WHEREAS, The sad news having reached us some months since, of the death of Prof. Samuel D. Gross, of Philadelphia, be it by this organization

Resolved, That in the death of Prof. Gross, America loses her greatest surgeon, the American profession one of its greatest teachers, and the world at large, one of the most brilliant luminaries in the constellation of renowned surgeons.

Resolved, That we, the physicians and surgeons of Southern Mexico taking advantage of this the first opportunity presenting itself to express our heartfelt sorrow at the demise of this great man; and while he went to his last resting place full of years and after much and long continued labor, we feel that his loss is a great one, and we mourn it, as the loss of our common family.

Owing to the late washouts on the A. T. & S. F. R. R., the attendance was much smaller than anticipated, there being but fifteen physicians present, but it is confidently expected that a much greater number will be present at the next meeting. Las Cruces was again chosen for the place of next meeting which occurs the second Tuesday in October—the 14th.

CORRESPONDENCE.

CONDOMS IS EAR SURGERY.

Editors Review:—Noticing several allusions to the use of condoms in the REVIEW of late, I would like to add mine. For the last year I have utilized this much abused "weapon" for the application of heat or cold in cases of external otitis after the following manner. A small condom or the end of one is procured and the patient lying with diseased ear upwards, it is inserted into the external auditory canal as far as possible. A cork, perforated in two places is placed in the open end, one for a piece of catheter and the other for a piece of tubing. The water of the desired temperature can then easily be run (by the aid of a funnel) in at one tube and out at the other thus applying irrigation practically without wetting the patient and the results are admirable —relieving the pain almost instantly. I think it much more efficient than a poultice applied at the meatus. The water is introduced by a funnel as syphon. Respectfully,

W. EDWIN GROUND, M. D.

Toledo, O., July 30, 1884.

THE EXHIBITORS AND THE ILLINOIS STATE MEDICAL SOCIETY.

To the Editors of the Review.—In your issue of May 31, some one makes a labored attempt to lampoon the chairman of the committee of arrangements of the late meeting of the Illinois State Medical Society. There are twelve sentences in the article, and every one of them contains one or more misstatements, excepting, possibly, that one referring to a former meeting of the Society. Such statements are "sometimes called by harsher names" here in Chicago.

You say "a suspicion prevails amongst the exhibitors that they were imposed upon, etc." That may be true as to one or two of the exhibitors only. Some men always feel imposed upon when they have to pay money, or when they fail to get something for nothing. It is not true, however, as to the others. What you say about the vestibule being assigned to the exibitors, and one of these renting a hall in the vicinity and the others joining him as they arrived, etc., is such a mixture of misstatement as to be wholly without foundation. Neither is it true that "some of the exhibitors who came on the last day were forced to pay ten dollars." None who came in on the last day paid anything at all. The facts also flatly contradict your statement that "the Society itself appropriates funds to pay hall rent." The Society never does

that. And by way of climax you finally say: "The other members of the committee were not aware of their chairman's action and cannot be held responsible for it." Yes, that is the whopper! The committee, weeks before the Society met, voted unanimously that each exhibitor be required to subscribe twenty-five dollars toward defraying the expenses of the Society, and the principal exhibitors received early notice of that requirement. Nearly all complied with the conditions willingly and in a very gentlemanly manner. The chairman had no discretion given him in the matter, and only assumed such power in applying the rule to the smaller exhibitors who were required to pay in proportion to the space they occupied. But even in that he first secured the consent of two other members of the committee.

There was no compulsion about it in any way, as each exhibitor had his choice of complying with the condition or staying away.

All six members of the committee thought that those who took advantage of the meeting of the Society for pecuniary profit should help the local members of the profession to pay the expenses of the meeting. Also all held to the old-fogy notion that those who came for trade and traffic should be subordinate to the Society itself.

Yes, Mr. Editor, "Thrift (in a medical journal) is an excellent quality, but when it degenerates into that smallness which allows one man (who owns an organ), to squeeze another (who has not one) simply because he has not power to do it, it is sometimes called by a harsher name."

D. W. Graham,
Late Chairman, Committee of Arrangements, Ill. State Medical Society.

Upon inquiry we find injustice has been done Dr. Graham, and we therefore insert his communication. The information upon which the original article was based came from supposed reliable sources. Those who have had journalistic experience can appreciate how dependent an editor is for his information, and the impossibility of thoroughly sifting every piece of news received. That mistakes are occasionally made is to be expected; it is a matter of surprise that they are not more frequent. Dr. Graham has certainly not corrected us in the most kindly spirit, but as he has been wronged we allow him to select his own method of righting himself.—Ed. Review.

ANOTHER CHOLERA CIRCULAR.

RAILROADS TO LOOK AFTER THEIR STATIONS, DEPOTS AND GROUNDS IN THE INTEREST OF PUBLIC HEALTH.

The Illinois State Board of Health seems to have entered upon a systematic plan of operation, with the object of effecting such a general sanitary overhauling of the entire State as will put it in the best condition to prevent the spread of Asiatic cholera, if that disease should be brought into Illinois. In addition to a general memorandum concerning the important points which require prompt attention, and which was sent to the authorities of about 800 cities, towns and villages, a circular order was also issued through the offices of the county clerks, directing a sanitary inspection of all public buildings in charge of county commissioners or boards of supervisors, and requesting especial attention to the condition of almshouses, jails and kindred institutions. The following letter has been sent out to the managements of the various railroad lines operating in Illinois—the reference in the first paragraph being to the general sanitary memorandum, which has already been published in these columns.

Illinois State Board of Health,
Office of the Secretary,
Springfield, July 17, 1884.

My Dear Sir:—As will be seen by a reference to the resolution in the enclosed circular, the Board deems it important that preparation be made for the possible advent of Cholera.

It is desired, as one important step in the general sanitary movement already inaugurated, that all railway stations, depots and the grounds surrounding the same, be put in the best attainable sanitary condition, with especial reference to water-closets and latrines; and to the character of the water-supply for the use of employees and passengers. The same supervision should also be extended to passenger cars in the points specified. Accumulations of stagnant water, or the flow and seepage of foul drainage, in the vicinity of human habitations, are always injurious to health; but during a cholera epidemic, they are especially dangerous. So far as such conditions obtain as the result of embankments or road-beds, they should be remedied as speedily as possible.

The preservation of the public health—whereby among other things, interruption of travel and traffic may be prevented—is a matter in which carriers and the general public have a community of interests and duties alike, and to which it usually only needs that attention be directed in order to secure ready and efficient co-operation. Very respectfully,

John H. Rauch, Secretary.

DETERMINATION OF SEX.

A gentleman whilst awaiting his turn in the office of a prominent physician of St. Louis, picked up a copy of the Review containing Dr. Funkhouser's article on the above subject. On entering the doctor's consulting room he handed him the following reflections:

"The importance of position in this world extends through the various ram-ifi-cations of life even to sexual intercourse, and, if, after coitus, the lieing of the female upon the left side will man-ufact-ure a Gal baby, then the man who hankers after a B'hoy will be badly *left*, but the mother who wants a daughter will be all '*right*,' and vice-versa. Now if the above statement be correct, what would the product of their mutual labor be, should the woman lie too long on her back or place herself in position to hide her face in the pillows? At this season, the last position might present a stern view, but is yet one could be taken and is worthy of consideration. The idea that the world at large and our friends also, being able to tell by our offspring our desires and positions fills us with dismay and we subside.

One-fourth of the inhabitants of London receive gratuitous medical services.

ITEMS.

The Medical Age, July 25, reports a case of a distended bladder mistaken for a possible ovarian tumor.

Dr. Thin says, the demonstration of the spores in the bacillus of lepra and tuberculosis is merely a matter of good definition and illumination.

The British Medical Association are doing good work in defraying the expense associated with any original work in the domain of medicine and hygiene.

MM. Beaunis and Mangin, in a note to the Académie des Sciences, "On the Respiration of Leaves in Darkness," state that the belief, that more carbonic acid is exhaled by leaves, when the temperature is high than when it is low, is an error. According to their researches, the relation between the quantity of oxygen absorbed, and that of carbonic acid exhaled, is constant whatever may be the temperature.

The San Francisco Western Lancet, and the Pacific Medical and Surgical Journal will be merged. The former editors, Drs. Gibbons and Whitwell, will conduct the combined journal, which will, no doubt, profit by the combination.

The New York Medical Journal makes the following wicked comment on Dr. Wm. Hammond's appearance as a novelist: "At first sight it seems somewhat remarkable that so busy a man as Dr. William A. Hammond should have followed this course. The wonder diminishes, however, when we cast a look back at his articles published twelve or fifteen years ago, in a psychological journal of which he was the editor, which, though nominally medical, were really quite indicative of his penchant for romance, and gave abundant evidence that, if he ever did actually take up literature as an occupation, he would make a creditable show."

The National Board of Health held a meeting in Washington on Wednesday, July 30th, at which officers were elected as follows: President, Dr. James L. Cabell, of Virginia; vice-president, Dr. Stephen Smith, of New York; secretary, Colonel George E. Waring, of Rhode Island.

In 1871, there were 300,000 deaths from cholera in Russia; in 1873 there were 16,000 deaths in Poland; in 1872—73 there were 140,000 deaths in Hungary; in 1872—73 there were nearly 27,000 deaths in Prussia; in 1865—67 there were 143,000 deaths in Italy. In Paris, the mortality from cholera has been as follows. In 1832, 18,654 deaths; in 1849, 19,184; in 1853—54, 8,096; in 1865—66, 12,082; in 1873, 885. In England, in 1849, the deaths from cholera were 70,000. In 1817 the army of the Marquis of Hastings in India lost 9,000 men in twelve days from Asiatic cholera.

Prof. Jæger, the distinguished ophthalmologist of Vienna, died recently.

The University of Heidelberg will soon celebrate its five hundredth anniversary.

The conference of states board of health to be held at Washington, D. C., Aug. 7th, has been indefinitely postponed.

The British Medical Association has just held its fifty-second annual meeting; it has a membership of nearly 12,000. Dr. A. T. H. Waters, of Liverpool, is the retiring president, and Dr. Cummings has been elected to that position for the ensuing year. Dr. Lewis A. Sayre, of New York, gave a demonstration of his plaster-of-paris jacket, on the first day of the meeting.

In answer to "Subscriber," we will state the American Public Health Association publishes an annual volume of its transactions. Dr. A. L. Ghion is the present presiding officer. For further information he is referred to Dr. J. Berrien Lindsley, Nashville, Tenn.

It is the intention of the friends of the late J. B. Dumas, the celebrated chemist, to erect a statue to his memory in his native city, Alois. A committee has been formed for the purpose of receiving subscriptions the president being Pasteur.

The case of cholera reported on a Mississippi river steamboat turns out to have been nothing more than a case of summer complaint. It, however, was an excellent chance to attack the Marine Hospital Service, and the most was made of the opportunity. Dr. Hamilton occupies the pleasing position of being d——d if you do, and d——d if you don't.

The dosimetric system introduced by Dr. Boergrave, of Belgium, seems to be gaining quite a number of disciples. There is an organ published in London and one in Paris.

The physicians of Havana are moved by the fact that an agent of Declat's phenic preparations has been named the experimental chief of a scientific commission to determine the value of carbolic acid and its compounds in the treatment of yellow fever. He is represented as an ignorant pretender possessing a liberal quantity of what is here denominated "cheek."

so that trouble is imminent despite the post-mortem and microscopic examinations.

The Medical Record is responsible for the following: "Small fevers thankfully received" is a motto suggested to a young physician by Dr. Holmes.

A young doctor, who graduated at Harvard, met us here recently and asked us if Squibb's Preparations were used in St. Louis.

Prof. Jæger, the distinguished ophthalmologist of Vienna, is reported to have died recently.

Dr. Ladreit de Lacharrière treats porrigo decalvans with croton oil and claims many successes for this method.

There are some medical men who are still endeavoring to prove Guiteau insane. An equal number who are ready with arguments to show that he was not. In either case, the most prominent subject remains in statu quo and is likely to do so for sometime to come.

The French Academy of Medicine has decided that inland quarantine against cholera is impossible and that the most efficacious means are those which each person will exercise about his person and residence.

An atlas of skin diseases is being issued by a physician of Rio Janeiro, and is quite an artistic production. Two numbers have appeared so far.

The American Academy of Medicine will hold its annual meeting at Baltimore, Md., Oct. 28 and 29, 1884.

The local treatment of the chancroid is attracting a great deal of the attention of syphilographers at present.

We read in an exchange that a mixture of one pint of tinct. iodine to three of glycerine is a good remedy for chilblains. "Apply it with a feather." Wonder if a brush would not do as well.

The following are among the ingredients for a child's tonic, reported in a medical journal: Quinine sulphate, tannic acid, paregoric, tincture of cinchona, compound spirits of lavender and simple syrup, "Shake well" before using.

Dr. Ely Van de Wacker gives a very interesting gynecological study of the Oneida Community in the last number of the American Journal of Obstetrics.

TWO HARVEST EXCURSIONS are arranged for from all stations on the St. Louis, Keokuk & Northwestern Railway to Bismarck, Mandan, La Moure and Carrington, and intermediate stations from St. Paul and Minneapolis on the Northern Pacific Railroad and return, at the remarkable low rate of about one cent per mile for the round trip. One excursion is arranged for August 12th and 13th to witness the great Dakota harvest in progress, and one for August 19th and 20th to see the result of the best yield of grain ever raised in any country. Tickets good for forty days. For rates from various stations on the St. Louis, Keokuk & Northwestern Railway inquire of ticket agents, and for particulars see bills advertising each of the excursions.

DEATHS IN ST. LOUIS FOR THE WEEK ENDING AUGUST 2, 1884.

Small-pox	
Measles	
Scarlatina	
Diphtheria	5
Membranous croup	
Whooping cough	1
Typhoid fever	2
Cerebro-spinal fever	1
Remittent, Intermittent, Typho-malarial, congestive and simple continued fevers	12
Puerperal fever	1
Diarrhœl Diseases.	
Under 5 years	30
Other ages	3
Erysipelas	
Pyæmia and Septicæmia.	
Syphilis	
Inanition, want of breast milk, etc	7
Alcoholism	1
Other zymotic diseases	
Rheumatism and gout	
Cancer and maliguant tumor	4
Phthisis and tuberculosis Pulmon	10
Marasmus—Tabes mesenterica and scrofula	10
Hydrocephalus, tubercular meningitis, etc	1
Other constitutional diseases	2
Bronchitis	2
Pneumonia	6
Other diseases respiratory organs	3
Diseases of the circulatory system	6
Meningitis and encephalitis	5
Convulsions and trismus	12
Heat stroke	
Apoplexy	2
Other diseases of the brain and nervous system	4
Cirrhosis of liver and hepatitis	3
Enteritis, gastro-enteritis, peritonitis and gastritis	8
Bright's disease and nephritis	2
Other diseases urinary organs	1
Diseases generative organs	1
Diseases of the locomotory organs	
Diseases of the integument	
Accidents of pregnancy and childbirth	
Congenital debility, malformation, etc	13
Senility	7
Surgical operations	1
Deaths by suicide	3
Deaths by homicide	
Deaths by accident	8
Execution by warrant of law	
Unknown	
Total Deaths from all Causes	177
Total zymotic Diseases	63
Total Consitutional Diseases	27
Total Local Diseases	55
Total Developmental Diseases	20
Deaths by Violence	12
Unknown	

NATIVITY OF DECEASED.

St. Louis	98
Missouri	6
Other parts of the U. S	32
Canada	1
England	2
Scotland	1
Wales	
Ireland	10
Germany	18
France	1
Switzerland	
Austrian Empire	2
Sweeden and Norway	
Russia	1
Netherland	
Denmark	2
Itsly	1
Other Foreign Countries	1
Unknown	2

CAUSES OF DEATH.	Deaths during July '84.	Deaths during July '83.
Total Deaths from all Causes	876	918
Total Zymotic Diseases	343	406
Total Constitutional Diseases	144	143
Toial Local Discases	778	251
Total Developmental Diseases	64	78
Deaths by Violence	47	40
Unknown		
Small-Pox		6
Measles	5	8
Searlatina	11	17
Diphtheria	18	33
Membranous Croup		3
Whooping Cough	2	3
Typhoid Fever	13	13
Cerebro-Spinal Fever	4	4
Remittent, Intermittent, Typho-Malaria, Congestive and Simple Continued Fevers	30	24
Puerperal Fever	3	5
Diarrhœal Diseases { Under 5 Years	191	242
Diarrhœal Diseases { Other Ages	19	20
Erysipelas	1	
Pyæmia and Septicæmia	2	5
Syphilis	2	1
Inandition, Want of Breast Milk, etc	33	14
Aleoholism	4	3
Other Zymotic Diseoses	5	5
Rheumatism and Gout	3	2
Cancer and Malignant Tumor	14	20
Phthisis and Tuberculosis Pulmon	57	68
Marasmus — Tabes Mesenterica and Scrofula	25	47
Hydrocephalus, Tubereular Meningitis, etc.	10	5
Other Constitutional Diseases	8	1
Broneeitis	13	9
Pneumonia	22	18
Other Diseases Respiratory Organs	15	13
Diseases of the Circulatory System	32	30
Meningitis and Encephalitis	21	35
Convulsions and Trismus	48	49
Heat Stroke		
Apoplexy	10	9
Other Diseases of the Brain and Nervous System.	45	38
Cirrhosis of Liver and Hepatitis	18	14
Enteritis, Gastro-Enteritis, Peritonitis and Gastritis.	34	16
Bright's Disease and Nephritis	11	2
Other Diseases Urinary Orgaus	5	1
Diseases Generative Organs	3	2
Diseases of the Locomotary Organs	1	3
Diseases of the Integument		2
Accidents of Pregnaney and Childbirth	2	3
Congenial Debility, Malformation, etc	37	59
Senility	25	16
Surgical Operations	1	1
Deaths by Suicide	5	6
Deaths by Homicide	6	4
Deaths by Accideut	35	29
Execution of Law		
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THE WEEKLY MEDICAL REVIEW.

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EDITORIAL CHANGE.

The acceptance of a chair in a medical school, and the preparation of a voluminous literary work necessitate my resignation as editor of the REVIEW. Thanking readers, co-laborers and publishers for many courtesies bestowed upon me, and asking a continuance of the same to my successor, Dr. Robert Luedeking, I herewith resign to him the editorial quill.

JULIUS WISE.

St. Louis, August 15, 1884.

MURIATE OF COCAINE has been made the subject of some experiments by Dr. Aschenbrandt of Wurzburg, says the Medical Record. He administered the drug, unknown to the subjects, who are soldiers, in doses of about one-sixth of a grain in cases of exhaustion and fatigue from various causes, and found invariably that the lassitude was speedily removed, and that the men could go on for hours without feeling either hunger or thirst. One of his experiments was made on himself after a sleepless night with the prospect of a long day's march before him, when a dose of cocaine (taken in coffee about 3 A. M.) enabled him to go the whole day without feeling hunger, thirst or fatigue, and he dined late in the afternoon with his usual appetite. He considers the drug to be a direct nerve food and not a stimulant merely; but its stimulating action is certainly far above that of alcohol and other hydrocarbons, and it does not appear to have any depressing or injurious after-effects.

BENZOIN, we are told by the Medical Record, promotes bronchial and cutaneous exhalation; a large part of the acid is excreted by the kidneys as benzoic acid, and a part is changed into hippuric acid so that it renders the urine decidedly acid. It and the benzoate of ammonia are very useful when the urine is very alkaline or ammoniacal, and loaded with phosphates. It renders the urine acid, and arrests the ammoniacal and fermentative changes in the bladder. Phosphatic calculi are said to be dissolved by the long continued use of it. Foul smelling unhealthy and sloughing wounds and flabby granulations are improved by the ointment or tincture. It destroys fetor and stimulates to a more healthy growth. It has some antiseptic powers, and prevents fermentation and putrefaction, and is as useful in ulceration of the bowels as it is in open superficial ulcers. It may be given in pill form. We may add, that it is excellent to prevent lard ointments from becoming rancid, and is also an excellent vehicle for external remedies which are to remain in situ, forming as it does a sort of varnish which is both cleanly and permanent.

THE CENTRES FOR VISION have been examined by Dr. Philip Zenner and his results given in the New York Medical Record. After carefully examining the literature of the subject and making personal observations he concludes:

1st. Simple anatomical researches teach us that the optic nerves enter the primary visual centres, and that fibres pass from these ganglia to the occipital lobes. On account of the intrinsic difficulties of these investigations they cannot be accepted as conclusive.

2nd. Experimental investigation has proven that in higher animals the optic nerves do not entirely cross in the optic chiasm. In man the same has been proven by other means.

3rd. In rabbits experimental researches (Monakow) have shown a close relationship between the retinæ and a limited area in the occipital region, the visual area of Munk.

4th. In higher animals (dogs and cats) similar experiments have demonstrated a relationship between the retinæ and the posterior part of the hemispheres. The exact area has not yet been definitely located, though it is probably the so-called visual area.

5th. Observations on a human fœtus and pathological changes in an adult brain (Monakow), together with the former considerations, make it highly probable that the same anatomical relations exist in man.

6th. Further evidence for this relationship in man are two instances (Hugenin) of atrophy of occipital lobes following atrophy of the optic nerves. But this evidence must be accepted as of doubtful value. A good deal of the other evidence adduced for some of the above propositions is far from conclusive, but may stimulate further inquiry into this interesting question.

A New Theory of Fetal Nutrition is advanced by Dr. Jerome A. Anderson in the American Journal of Obstetrics. Briefly stated in his own words it is this:

That, once conception is fairly accomplished, the fetus is nourished by endosmosis and absorption from external sources, and not through the placental circulation, as heretofore taught. This endosmosis takes place primarily from the engorged tubal and uterine walls; later the amniotic fluid furnishes the necessary nutriment and is absorbed at all times not only by the external surface of the embryo, but after the first month it enters the intestinal tract, and is assimilated and distributed to the fetal tissues in a manner identical with the same processes in post-natal life. As a necessary corrollary it follows that the office of the placenta, or at least of the placental circulation, is entirely respiratory, or that of an oxygen carrier and carbonic acid remover. Among the facts proving this are: 1. The constant presence of nutritive substances in the amniotic fluid during the whole period of gestation. 2. The certainty of absorption by a growing, almost skinless, fetus of any nutritive material in which it is constantly bathed. 3. The permeability of the digestive tract at an early period, and the necessary entrance therein according to the laws of hydrostatics, of the albuminous amniotic fluid. 4. The presence of, as it seems to me, bona fide debris of digestion or meconium in the lower intestine. 5. The presence of urine in the bladder and bile in the upper intestine, their normal locations. 6. The mechanical difficulties opposing direct nutrition through the placenta, and the impossibility of nourishment by this method during the early stages of embryonic life previous to the formation of the placenta or umbilical vesicle.

Official Report to the Government respecting the cholera.—The following statements about the cholera question, whilst not very flattering to the efficacy of medical skill, should nevertheless be tabulated among the facts for serious meditation. However deplorable it may be that medical men have failed successfully to cope with an enemy the secret of whose existence is so obscure, it certainly is not less deplorable that in the face of a probable danger the people should so forget themselves as to run away and leave their helpless children. Frank H. Mason (according to the Times, of Chicago), United States Consul at Marseilles, in a dispatch to the state department relative to the cholera at that place and Toulon, says:

It appears that, notwithstanding all the progress in medical science and the very perfect arrangements for collecting and treating stricken victims of the scourge, more than two thirds of those attacked have died, even during the first fortnight of the epidemic, when all the sanitary conditions were most favorable. The almost immediate transmission of the disease from Toulon to Marseilles, the enormous death rate of 70 per cent. in the earliest stage of the epidemic, seem to prove that sanitary science and medical skill have made but little substantial progress in dealing with Asiatic cholera. A second feature of the pres-

ent epidemic is the rigor and deadliness of its attack as compared with that of the last great cholera summer of 1865. The rapidity and virulence of this development are attributed in some measure to the intense, damp, stifling heat which prevailed during most of the days since the 30th of June. There are physicians of judgment and experience who maintain that desiccation is the only effective destroyer of choleraic microbe on a large scale, and that dry, hot weather, while it may be unfavorable for those already attacked, is most effective in staying the spread of the contagion. Another noticeable feature of the present visitation has been the simultaneous and sudden appearance of the malady in all parts of the city of Marseilles. Fugitives from here have died at Aix, Grenoble, and other towns in Southern France, but the epidemic has thus far not been kindled there, nor have any persons been attacked except such as brought the contagion from this city or Toulon. In view of the enormous emigration, which has occurred since the outbreak three weeks ago, estimated by good authority at 100,000 from Marseilles and 50,000 from Toulon, and the distribution of this vast contingent throughout France, Italy, Switzerland and the Netherlands, it is noteworthy and encouraging that no authenticated case of cholera has occurred among the army of fugitives on any point north of Grenoble. Although a great number of Italian working people left the two stricken cities for northern Italy during the early days of the epidemic, the disease has not apparently been carried with them, or, if it has, it is not yet developed.

Nothing in all the dispute concerning the origin and cure of the disease has added any effectiveness to the means hitherto known for treating choleraic patients, and the proportion of deaths to cases appears to increase rather than diminish. A momentary gleam of hope was diffused by the announcement that patients had been rescued from the collapse stage of the malady at the hospital in Toulon by the inhalation of oxygen, but this encouragement has been clouded by the discovery that the effect of this powerful stimulant was but temporary and patients thus treated finally died in about the same ratio as those treated by other methods.

Some Points Observed in Sailing Round the World.—The British Medical Association is certainly doing a good deal of work of a very practical character by means of the grants of money which it has been making to scientific investigations. And it is interesting to know that the money comes from the purses of the British medical men. The most zealous, narrow-minded fanatics who head off their efforts to acquire knowledge in one direction only turn the tide of investigation into another channel, and every field of investigation when diligently pursued furnishes its own reward in the intrinsic interest associated with the facts discovered.

Not the least interesting of these reports is the one by Dr. Astley Gresswell, late house physician to St. Bartholomew's hospital, and assistant demonstrator of physiology at St. Bartholomew's hospital, etc., relative to his voyage round the world in a sailing ship.

The four subjects which he discusses are, 1. Some effects of variations of light. 2. Changes of body temperature. 3. Water exchange in the body. 4. Remarks on sea sickness.

To observe the effects of the variations of light, great attention was evidently paid to details, and the only varying circumstance, except such differences of surrounding temperature and moisture of the atmosphere which the deck of a ship would necessitate, was the presence or absence of neutral tinted glasses before the eyes. We cannot give the data and diagrams which illustrate the general conclusions, but the observer has the conviction that intense light stimulates the organism; that this stimulation is manifested by an increase in the number of the radial pulsations, the number of respirations and an elevation of the oral temperature. These changes, he thinks, are brought about by the special influence of the light on the eye, and supports his own conclusions by the previous observations

of others which contribute toward the proof of his conviction.

His study of the changes of body temperature are too elaborate to allow of condensation in the short space at our disposal. The section on the water exchange in the body, although it is only a preliminary report, is exceedingly interesting. Among other points of interest he says:

The amount of fluid in the body is apparently increased on passing into hotter latitudes, and the increase occurs especially in the peripheral parts.

In evidence there are the following facts. On February 13, 14, and 15, there is a daily average fall of 20 ounces in the amount of urine; that is, a total fall of 60 ounces of urine for the three days. There is also a daily average fall of 2 ounces in the amount of fluid taken; that is, a total fall of 6 ounces for the three days. So that there remain 54 ounces of water to account for. During these three days, the air was more nearly saturated than it was on the three previous days, and there was a slight rise of the sensible perspiration curve. The bowels also were open twice. Can the fall of urine be ascribed to these facts? If not, then the conclusion is forced upon us, that there was more water in the body during February 13, 14, and 15 than there was during the three previous days.

Again, on February 16, 17, 18, in a chart belonging to another person, aged 36, there is a daily average rise of 11 ounces in the amount of fluids taken; that is, an increase of 33 ounces for the three days. There is also a daily average fall of 17 ounces in the amount of urine; that is, 51 ounces for the three days. There are, therefore, 84 ounces of fluid to account for. During these days, there was a small rise of shade-temperature. The air was almost saturated, and the sensible perspiration was not suddenly increased; indeed, it was small in amount. May we, then, conclude that a portion of the 84 ounces was stored in the body?

Again, on March 23, 24, 25, in the same chart, there is a sudden fall of temperature; there is also a sudden rise of the urine curve, while there is a fall of 3 ounces of water drunk daily. Can this sudden rise of urine of 14 ounces daily—that is, 42 ounces for the three days—be ascribed wholly to diminution of perspiration? It may, perhaps, be due to a disgorgement of surplus fluid in the skin.

Similarly, on March 29, 30, and 31, in Chart A, there is a sudden daily average increase of 13 ounces of urine, while the drink curve has fallen by 4 ounces daily. In other words, as compared with the three previous days there has been a loss of $13 \times 3 + 4 \times 3$ ounces$=39+12=51$ ounces of fluid; and this, though the air has become only slightly more saturated. The air has fallen slightly in temperature. May, then, this loss of 51 ounces be in part attributed to disgorgement of stored up fluid on entering colder latitudes?

Again, the amount of urine passed between 9 A. M. and 9 P. M. exceeds that passed between 9 P. M. and 9 A. M. when in cold latitudes, while the reverse relation obtains in hot latitudes. This is shown in Chart A, and it is also expressed in another chart drawn from observations upon another person. These facts may be read in the same light as those above mentioned. In hot latitudes the peripheral temperature is raised by day, while in cold latitudes it is raised when warm in bed. This change of temperature is doubtless due to change of calibre of blood-paths in the periphery; and this is apparently associated with a reduction of blood-pressure, despite free libation. The amount of urine, then, by day, in hot latitudes, is small, because while blood is drafted into the skin, the blood-pressure is not raised sufficiently high by the fluids taken (even when taken *ad libitum*) to maintain the amount of urine at its previous height. The skin, morever, is well known to be turgid in hot weather; rings on the fingers of some become almost imbedded.

If there be such a draft of fluids into the skin, and also a fall of blood-pressure, we need not, perhaps, go further in search of an explanation of the failure of appetite and the languor of mind and body experienced on entering warm latitudes. The blood-corpuscles there are distributed over a larger area; it

needs some considerable time to develop red cells; andwe may conclude that fewer red bloodcells(and, indeed, less of the more essential constituents of the blood) circulate in a given time through the central parts on entering suddenly into warm latitudes. Hence, perhaps, the anorexia, the mental and the physical lassitude.

On the other hand, on entering moderately cold regions, the flame of life in central parts is invigorated; the ozone-bearing cells, now circulating more thickly through the central parts, apparently stimulate them to renewed action.

The Chancroid and Its Treatment is the subject of a paper by Dr. J. Henry C. Simes in the Polyclinic. Among other things he says:

After the division of venereal sores into infecting and non-infecting, the application of caustics has been continued, on the ground that each variety of sore contains within itself a specific virus. That this is true of the infecting variety none deny; but that there exists any specific element in connection with the non-infecting sore is a question which, at the present time, is disputed by a few authors. I do not propose now to enter into a discussion upon the specificity or non-specificity of the chancroid, but may say, that a study of the subject has led me to think there still is room for investigation, and that, viewing the subject from a therapeutical standpoint alone, the specific nature of the chancroid, as far as my experience goes, need not be admitted. My reason for adopting this view of the subject is based upon the investigations of a practical kind which I have carried out during the past year. Within this period there came under my observation seventeen cases of chancroid; of these five were treated by caustics previous to coming under my care, thus leaving twelve cases which I saw from the beginning to the end. Among this number the different varieties were met with, as single, multiple, concealed, etc., thus offering a favorable opportunity for my investigations.

From frequent employment of the cauterizing agents in this lesion, I had seen some of the disadvantages they occasioned and more particularly the pain. This is always severe, and at time intense,notwithstanding the use of a local anæsthetic, such as carbolic acid, previous to the caustic application. The administration of ether or chloroform to produce general anæsthesia is, in my opinion, not admissible in such cases, except in rare and unusual circumstances. If, therefore, the same results could be obtained by not applying any such severe means of treatment, it certainly would be a great gain, and from the fact that such a claim had been made, a trial of the method advocated by those who do not employ caustics seemed at least justifiable. Therefore, I determined to omit all cauterizing agents in my treatment of the chancroid, provided no ill effect arose from the omission.

The number of cases treated as above stated were twelve, and in none did I find it necessary to resort to any cauterizing agent; in none did any complication arise during treatment; and in all a favorable termination was the result. One of the greatest difficulties the surgeon will meet with in following out this method of treatment is the patient himself.

Versions and Flexions of the Unimpregnated Uterus is the title of a paper in the Medical News by Dr. Ely Van de Wecker. Among the pertinent things he says is the following:

The catarrhal inflammation of the uterine cavity either of the neck or body, owing to the changes induced in the mucous membrane and contiguous layers, is a constant source of versions or flexions. So commonly is this inflammation present that it is rare indeed to find a childbearing woman suffering from a version or flexion in whom evidence of endometritis is not found. We have but to recall the obliteration of the internal os, the thickening and tenderness of the walls, the hemorrhagic and tender mucous lining of the fundus as the result of a chronic corporeal endo-

metritis, in order to realize how readily these conditions drift into the necessary antecedents of version or flexions. Papillary hypertrophy (so-called granular erosion) of the os, acting by the extension of the inflammatory process, in which it has its origin, to contiguous parts, and thus invading the cavity of the cervix, must be given causative value. When retroversion remains after the cure of erosion (Bennett), it is evidence that inflammation is yet lurking in the cavity of the cervix. The endometritic inflammatory conditions often taking place from deranged or arrested menstruation by taking cold, can also lead to those tissue-changes which result in flexions or versions. Causes of flexion which seemed to be traceable to these sudden outbursts of inflammation of the endometrium, led Martin to the idea that these flexions were often caused by rheumatism of the organ, from taking cold. The paper is a very thorough one and deals, in extenso, with all the potent causes of these diseases. He has liberally drawn from authors and lays his subject well before the reader.

Cheese-poisoning.—At the meeting of the Michigan State Board of Health held July 8, at Lansing, an interesting report(Med. Chron.) was made by the secretary on outbreaks of cheese-poisoning in Michigan during May and June at four different points in the state. All persons who ate of the cheese were taken sick (in all about one hundred and sixty-four persons) with the same symptoms, i. e., pain and burning sensation in stomach, intense vomiting and purging, feeble pulse, cold extremities, and tendency to collapse. All finally recovered. The cheeses were ordinarily good looking samples, but when cut or broken a liquid oozed into the pores. In each case the cheese was made at one and the same factory.

Dr. V. C. Vaughan, Committee on Foods, also read a report on cheese-poisoning. At the request of the secretary, he had visited the factory and had analyzed specimens of the cheese. Everything about the factory appeared to be scrupulously clean, and nothing in vats, cans, or surroundings offered any explanation of the cause of the poisoning. Analysis showed no arsenic, copper, lead, iron, or other mineral poison. When the cheese was cut or broken a whitish liquid oozed into the pores, and in the liquid microscopic organisms were detected. The liquid was very strongly acid.

For more than 100 years the attention of the scientific world has been drawn to the subject of cheese-poisoning by repeated outbreaks of this sort in this country and Europe. Much has been written on the subject, and many investigations carried on, especially in Germany. It has been variously ascribed to diseased milk, decomposition and the developments of certain fatty acids, etc., but we do not yet know what makes the cheese-poison. The manufacturer said the cheese which produced the ill results was all made between April 26th and May 26th, 1884. It was made in the same manner and with the same care as other lots which had given no cause for complaint. Good cheese is only very slightly acid, and slowly reddens blue litmus paper. The poisonous cheese was intensely acid, instantaneously reddening blue litmus when the paper was applied to the freshly cut surface. This test for poisonous cheese appears to be practicable. The blue litmus paper could be applied by any grocer to each freshly cut cheese. If the litmus paper is instantly turned red by the liquid which oozes into the pores, the cheese is to be suspected as poisonous. Dr. Vaughan's report will be published in the next annual report of this board.

A Case of Hermaphroditism in the Horse.—A peculiar case of monstrosity in the horse just now is being exhibited in Chicago—a little five year old black stallion with a conformation of the genitals which would probably consign it to the class of hermaphrodites. The male part of the genitals is, however, greatly in excess of the female. The peculiarity may be described as follows: The anus seems normal in every respect. Immediately below the anus, however, is seen a

certain amount of loose tissue that may well be taken to represent a poorly developed equine vulva without the vulvular opening. Immediately below this aborted vulva is the penis pointing directly backwards. The testicles are situated in the normal place, but rather small; moreover, there seems to be an unusual tendency to retract them so that to a casual observer they may at times be supposed absent. On the scrotum are two fairly developed nipples. The heads and shoulders of the animal are rather those of a female than the male. He is said to be the sire of a healthy, normally developed colt, copulation having taken place by a backward movement.

Regarding Communications.—We desire to call the attention of our esteemed contributors to the advantages of sending their matter *legibly written in ink* and on one side of the paper, and to the necessity of plainly writing proper names (say of colleagues, who have assisted at operations, etc.), so that no error can occur. In a journal that is issued every week work must be done rapidly; it is very essential also that no palpable mistakes occur in the typography. Nothing is more disagreeable to us, and, we think, to contributors, than obscurity in diction, so often caused by tough passages in the manuscript; and, to judge by the feeling engendered in us, when our names are grossly disfigured, we believe, that when a reader sees *his* name in print, twisted out of all semblance of truth, nothing but a certain monsyllabic expletive can do justice to the mingled sensation of disgust and disappointment.

Concerning the Arctic Horror.—We fail entirely to be horrified at the alleged cannibalism that is reported as having occurred in the Greely party. Men that starve must have food, and there can be no violation of ethics in eating human flesh under such circumstances. As to the shooting of Henry, it appears to have been the correct thing. His crime was one deserving death, and was meted out after due conviction; the poor fellows should not be begrudged the fresh meat they so obtained. If we were to go into the Arctic hero-business, cool deliberation at the start would prepare us to eat or be eaten, if need be.

The Treatment of Hypertrophied Tonsils by Caustic Applications is a practice that recommends itself to timid people and, in view of the frequent recurrence of the enlargement after partial excision, as well as the positive dangers possible through the topographical anatomy, should be more frequently practiced by the physician. Prof. Chisolm in an article on the above subject (Indiana Medical Journal), says that the local application of destructive agents alone promises no satisfactory reduction of hypertrophied tonsils. He regards caustics as usually applied (to the surface of the tonsils) as objectionable, because they are violent in their action, difficult to limit to the tonsil proper, and by excoriating the mucous surface with which they come in contact usually make a very painful sore throat.

He advises a better and more sucessful method of applying these destructive agents based upon the anatomy of the tonsils. The exposed surfaces of the tonsils are more abundantly supplied with sensitive nerve filaments than the interior surfaces of the follicles, and the latter being, to a certain extent, deficient in common sensation, destructive agents can be applied to their interior surfaces without annoying the throat proper, or causing much pain.

Dr. Chisolm prefers for local use in the treatment of enlarged tonsils the chloride of zinc, it being the most available and the least annoying to the patient. He uses it in the following manner: A wire, the size of a fine knitting needle, is roughened for a half inch from one end, so that it may hold a fibre of absorbent cotton twisted upon it. This is dipped into a saturated solution of chloride of zinc, and thrust to the bottom of the follicle and kept there several seconds. When withdrawn the whitened orifice marks the cauterization. By renewing the cotton for each follicle, several may

be thoroughly cauterized at the same sitting without causing any annoying irritation to the throat. A very few applications will cause the gland to shrink.

THE INCREASE OF INSANITY is commented upon by the New England Medical Monthly. It states that it is doubtless a fact that the cause of this state of affairs may be found in over-education or excessive development of the nervous system, upon which the health of the individual so greatly depends. It is in the individual whose central nervous system is impaired by over-work in the widest signification of the term, that morbid appetites are created most readily, and it is these persons who suffer, in a large proportion of cases, from the effects of the various stimulants and narcotics which have been primarily, and too readily employed during these states of nervous exhaustion. High states of civilization seem necessarily to produce a highly wrought and delicately fashioned nervous system, which from its very constitution is susceptible to derangement. It does not seem proven, however, that we should necessarily pay a forfeit for high culture. There is abundant testimony to the fact that our methods of education are open to censure. When these are improved upon—when mental work has become systematized and we have learned to make haste slowly, it is then, but not before, that we shall have a satisfactory record to show for our labor.

COLOR PERCEPTION is referred by Dr. Swan Burnett to certain centres in the brain. He claims, we think, with justice, that it is time to do away with the idea of supposing the retina a differentiating organ; he regards its function as that of merely receiving and transmitting luminous vibrations leaving the process of differentiation to certain regions of the brain.

THE ORDER OF THE LEGION OF HONOR is said to have been conferred on Dr. Robert Koch by the French people.

ARE CHILDREN EXEMPT FROM THE DANGER OF CHLOROFORM?—The Paris correspondent of the Medical Record says that Dr. de Saint Germain claims that children possess no greater immunity against chloroform than adults, but as he further adds that the said Dr. de Saint Germain uses only chloroform and confines his attention to the condition of the respiration as a signal of danger, we consider the value of his observation proportionately diminished. Certainly the weight of evidence is in favor of the statement that chloroform kills, as a rule, by arresting the heart's action.

SARCOMATOUS TESTICLE.—The following from the London correspondent of the Med. Record is very instructive. It is taken from a lecture by that eminently practical man, Mr. Hutchinson:

On Wednesday, July 2d, a good audience assembled to hear the lecture on "The Early Recognition of Cancer." The term "cancer" was used in its clinical sense and as including sarcoma, and not in its limited anatomical sense applying solely to carcinomatous growths. The importance of its early recognition was obvious. Mr. Hutchinson said, that before the actual presence of cancer, was what might be termed the pre-cancerous stage, and this was essentially a condition manifested by signs of local inflammation. An interesting case was narrated in support of this view. It was that of an old gentleman whom Mr. Hutchinson saw in consultation some years ago. One testicle had enlarged and was slowly increasing in size. The surgeons who saw the case agreed that it was probably not malignant and recommended non-interference. It continued to grow, however, and was at last removed solely by request of the patient, who had all along been anxious about it lest it should be cancerous. It was examined microscopically and was found to be simply a condition of inflammatory hyperplasia, and no signs whatever of malignancy were discoverable. The patient recovered from the operation, no further trouble manifested itself, and his medi-

cal attendants came to the conclusion that his testicle had been really unnecessarily removed. Two years elapsed. The remaining testicle then began to enlarge in the same way in which the other had done. Remembering the result of the previous operation, the surgeons strongly advised the patient against operation. As before, it continued to enlarge until finally it reached a considerable size. At last even the surgeons began to be alarmed and the patient's anxiety was extreme. The testicle was finally removed at the urgent request of the patient. It was examined and proved to contain a well-marked sarcomatous growth. The inference was that the one first removed would, if allowed to remain, have also acquired a sarcomatous structure, and the inflammatory hyperplasia found was a condition leading up to that of actual malignancy.

The Micrococci of Friedlander, so called by Dr. G. M. Steinberg of the U. S. A., are said to be of "apparent morphological identity" with micro-organisms of a fatal form of septicæmia in the rabbit, published by him in 1881.

Governmental Investigations of Diseases.—The Imperial Government of Germany is about to appoint a committee of enquirers to investigate the question of vaccination and to prepare statistics. The several Federal German Governments have already been requested to send reports on the results of the vaccination of 1882–3. We further learn that the English Government is about to send out a corps of scientific men to study the peculiarities of cholera in its native place. Perhaps the time will come when some of the resources which were formerly spent in the ravages of war may be devoted regularly to such philanthropic, humanitarian investigations which are of such a nature that they can be done only by the governments. There certainly is no excuse for the American Government to be behind in the contributions afforded for such purposes, nor do we think it will be. The investigation of the peculiarities of yellow fever would seem to be a task which should be undertaken by American students, and the necessary funds for the same would, we are sure, be gladly furnished by the American Government. The task is great, however, and the solution of the problem, even as far as pathology is concerned, will probably not be accomplished by one corps of men

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A Case of Chloroform Narcosis for eight days is reported by the Paris Correspondent of the N. Y. Med. Record. The occasion was that of an epileptic, who had broken his arm, hence the necessity of preventing an epileptic attack.

The Chloride of Gold and Sodium in Some Nervous Affections is spoken of by Dr. Roberts Bartholow in the Medical News. He says that from the various sources of information now available, chiefly clinical, we learn that the preparations of gold possess those qualities formerly entitled "alterative," and now usually designated by the phrase "promoting tissue metamorphosis," or "metabolism," and the power to give stability to nervous matter, or the antispasmodic property. There are three several heads under which it will be convenient to group the therapeutical powers of gold and its preparations, quite irrespective of its supposed physiological actions: 1. The so-called alterant effects. 2. The actions on the nervous system; and, 3. The urino—genital properties. The usual dose of the gold and sodium-chloride is one-twentieth of a grain twice or three times a day. Excellent results have followed its use in many cases of fibroid kidney. There is a form of hypochondriasis, co-incident with the onset of degenerative changes in the cerebral vessels, and it may be dependent on these changes, in which it is very effective. In certain affections, characterized by spasms, as asthma, laryngismus stridulus and singultus, it acts surprisingly well sometimes. It has also been successful in chronic cases of albuminuria, sexual debility, dysmenorrhœa and chronic metritis. In fact, it appears that all its good qual-

ities are but making their appearance, and more is to follow.

A Case of Myxœdema with Atrophy of the Optic Nerves was reported by Dr. O. F. Wadsworth, of Boston, at the late meeting of the American Ophthalmological Society, reported in the New York Medical Journal. The patient was a married woman, 42 years of age. She had never had any children nor any miscarriages. Menstruation had been regular until three years ago, when it ceased. The general health had been good. Six years ago the face, the lower part of the hands and the feet became enlarged and œdematous, but did not pit on pressure. This gradually increased, but continued limited to the parts first affected. She stated that she never perspired, but the skin was not especially dry to the feel. A year and a half ago she noticed that the sight of the right eye was beginning to fail. With this there was now barely perception of light. With the left, vision was $\frac{20}{40}$. The discs presented the appearance of simple gray atrophy. The mental condition was good, although her friends thought that her memory was not so good as formerly. The reader had examined other cases of myxœdema, but had never before seen any affection of the eyes. Dr. Little stated that he had examined seven or eight cases of myxœdema, but had never seen anything abnormal with the eyes. In the majority of cases of myxœdema so far reported, which we have had an opportunity of examining, no such complication as recorded above has been mentioned, but, on the other hand, there is no mention of any ophthalmoscopic examination of the eyes.

Professional Lipoma of Prostitutes.—The following remarkable report is found in the London Med. Record, taken from the Russkaia Meditzina, No. 13, 1884. Dr. Preis, of the Charkov Hospital for Venereal Women describes what he calls "lipoma diffuso-circumscriptum professionale," to the existence of which in prostitutes his attention was first called by Dr. Porai-Koshitz of Charkov. The tumor was present in 145 out of 217 prostitutes living in Charkov brothels, and is invariably situated in the region of the sixth and seventh cervical vertebræ, its growth always starting from the spot exactly over the spinous process of the vertebra prominens. Its size varies from that of a nut to that of a large apple, the diameter of its base varying between two to twelve centimetres. Its shape is hemispherical or semi-oval, with a flattening in the middle. The surface is smooth, the skin tense and adherent, sometimes pigmented but otherwise normal. On palpation the tumor is somewhat firm, elastic, movable, painless. Its development begins soon after the woman has entered the profession of a prostitute, and proceeds pretty rapidly. Dr. Preis thinks that this tumor is a lipoma resulting from hypertrophy of the fatty tissue normally present in the situation mentioned above, and that its development is caused by local mechanical irritation. The latter is given in the form of pressure to which the spinous process of the seventh cervical vertebra is especially subjected during coition, when the woman lies on her back with her head flexed, so that the upper part of the back and lower posterior part of the neck form an angle, the apex of which is the seventh cervical spinous process. In all movements of the pelvis and limbs during the sexual act, the body's weight rests upon this region. Hence tall and well nourished prostitutes are more liable to the development of professional lipoma than short and meagre women. The author and Drs. Porai-Koshitz and Bellin were unable to detect this tumor in non-prostitutes. Syphilis seems to have had no connection with the development of the tumor, since of 145 prostitutes possessing the lipoma 75 never had any venereal disease.

Dr. P. A. Laver writes to the Canada Medical Record: A few days ago I extracted a hair (cilium?) from the upper canaliculus of a patient's left eye. He thinks it must have found its way there from some other eye, as it was of quite a different color from his own blepharides.

It seems that there is a crop of office thieves springing up, who abstract books and instruments from the offices of physicians, under the pretense of waiting for the doctor.

CONTRIBUTIONS.

REPORT OF TWO CASES OF RAILROAD INJURY.

BY DAVID S. BOOTH, M. D., SPARTA, ILL.

Read before the Southern Illinois Medical Association.

MR. PRESIDENT AND GENTLEMEN:

"'Tis greatly wise to talk with our past hours;
And ask them what report they bore to heaven;
And how they might have borne more welcome news.
Their answers form what men experience call.
If wisdom's friend, her best; if not, worst foe."
—Young's Night Thoughts.

Man is a microcosm, or little world within himself, and each and every case of illness or injury is modified by peculiarities within or without the patient, or both, so that when properly studied, they have an individuality and interest that superficiality of study never discovers.

By ignorance is pride increased
They most assume who know the least.
—Gay's Fables.

When disease or injury is developed in man without a violation of any of the known laws governing the delicate mechanism of his organism, then the patient is not personally responsible; although he may suffer for the sins of the parent unto the third or fourth generation. But when he brings pain and misery upon himself, and so impairs or modifies his system that a trivial disease or injury becomes a serious or fatal matter, we, physicians and surgeons, are forced to throw the broad mantle of charity over his foibles, and suffer the ignominy of failure, be the odds ever so strong against us.

"Nor need we tell what anxious cares attend
The turbulent mirth of wine; nor all the kinds
Of maladies, that lead to death's grim cave,
Wrought by intemperance; joint-racking gout,
Intestine stone, and pining atrophy,
Chill even when the sun with July heats
Fries the scorch'd son, and dropsy all afloat,
Yet craving liquids."
—Phillip's Cider.

The minister of the gospel, the reformer, the law-maker and the physician, as conservators of health, have all failed to impress upon the drunkard and violator of the laws of health the fact that, "the wages of sin is death."

The present report is intended to cover one of those sad cases where the injury and the result were dependent almost entirely upon the patient himself. . He was a moral and physical wreck, with a system so impaired by debauchery and licentiousness that even a trivial disease or injury was a serious thing.

The modifying influences are at work in every case, sometimes in favor of the physician and surgeon, but often against.

It is these modifying influences that give the individuality to the disease and injury, and demand the highest culture, that each and every case shall be studied and treated upon its individual merits; that the indications as found at the bed-side shall regulate the selection of the medication and treatment; the only true method of practice that will prevent a routine treatment, e. g., that an opiate shall not be given for the simple reason that the patient is restless and in pain, when there are marked contraindications forbidding the use of the drug.

Mr. C. B., while intoxicated, attempted to get on a train when moving at a speed of five or ten miles an hour. Some portion of the car struck him upon the head, and in falling, his left leg was thrown under the car, the wheels passing across the leg.

September 25, 1883, about 2 o'clock, P. M., I received a telegram calling me to Baldwin, Randolph county, Illinois, to see Mr. C. B., who was reported as being seriously injured in the manner above described.

Upon reaching the Sparta depot, I was informed that the Baldwin physicians were all away from home. I telephoned to Dr. H. R. Guthrie to accompany me.

We arrived at the side of our patient about four hours after the receipt of the injury. He was lying upon the floor of the freight house, where he had lain from a few moments after the receipt of the injurry until our arrival. He was almost exsanguine from the loss of blood, and the blood on and about the patient gave evidence of a great loss, as there was a great pool about him, and his person and clothes were thoroughly saturated with blood. His countenance was pallid, pinched and hipocratic, and the pulse almost absent at the wrist.

After giving him a stimulant, we had him placed upon an improvised operating table. Upon examination of our patient's injuries, we found that the soft parts were crushed almost to a pulp and extensively lacerated, and the bones of the leg comminuted.

After completing a very careful examination of his condition from all standpoints, we were in a quandary as to the best course to pursue, as death appeared inevitable in the near future, and we feared death on the operating table. After discussing the case, pro and con, and halting between two opinions for a few moments, plying the patient freely with

stimulants in the meantime, we concluded to remove the injured limb just above the lacerated parts.

We amputated the leg just below the tubercle of the tibia, making two flaps, anterior short, and a posterior long flap, dressing it in the usual manner. The anesthetic used was ether, with a few drops of chloroform to hasten the effect.

There was a deep laceration of the scalp about four inches in length, extending from the coronal suture in front, to the lambdoidal suture behind, a little to one side of and running parallel with the sagittal suture, grazing the bone the entire length. This we cleansed and coaptated as nicely as possible, using silver sutures, with skull cap over all.

After completing the dressing of his injuries, we gave him a hypodermic injection of morphine, and then had him carried to a house in town, leaving him in charge of Dr. O. H. Rhoades.

I was not called to the bed-side of Mr B. until October 9th, fifteen days after the first visit, when, upon examination, I found that gangrene had attacked the stump, and that it was sloughing extensively.

The signs of inflammation extended some distance above the knee, and on the posterior part of the limb the sloughing process reached two or three inches above the knee-joint. The ulcerative process did not run in a circular manner around the limb, but in a serpentine, or irregular course.

The swelling of the soft parts was boggy, skin mottled and of a violet color, with an occasional bulla. The temperature of the limb below normal. Emphysematous crackling was marked, and the odor was very offensive.

His general condition was very decidedly better than at the time of primary amputation, appetite good, resting well at night, bowels regular, in fact, secretions active, and mental state clear, and very hopeful of recovery. There were no signs of a line of demarcation forming, but there was an abundant discharge from the stump of an offensive sanies.

There was a striking contrast between his general condition and the condition of the stump. He appeared simply to have vitality enough to sustain the general system, but no reserve or surplus to repair an injury. Of one thing I felt assured, that his then condition was better than at first amputation.

I therefore determined to call the physicians together, and if the same opinion prevailed, reamputate above the highest point of gangrene.

The following day, October 10th, in company with Drs. Guthrie, Rhoades, McMinorny and Weir, I visited the patient, and after a careful and critical survey of the case, but one opinion prevailed, and that was to reamputate the thigh immediately above the upper margin of the highest point of the gangrene. This operation would settle a point, on which we all had doubts and fears, as to the probable cause of the gangrene, which was, that the first amputation did not remove all of the contused tissues, and that, the first amputation, being through the cancellous structure of the tibia, and as the mouths of the vessels remain open, and are larger and more numerous than in the compact structure, there is greater danger of infection. The reamputation would be in the compact structure, and of course the danger would not be so great. Primarilly, the blood is infected, and through this channel secondary infection follows. We made the amputation in the lower third of the thigh by flap operation, using every care to remove all diseased structure, and then bathing the soft and hard parts with a strong solution of carbolic acid, 1-10, then with solution of permanganate of potash, 1-10. Only three ligatures were required in this amputation, being the same number as in the first. We introduced a large drainage tube, notched on all sides, so as to drain every part thoroughly, the same as in the first amputation, and used silver sutures in both operations. After the flaps were brought together, we coated the stump with a thick layer of dry clay, finely powdered, and then applied a compress wet with a solution of carbolic acid, 1-40. As often as required, the stump was washed out with either a solution of permanganate of potash or carbolic acid, the injection being introduced through the drainage tube, the most dependent part being held or closed, until the fluid had had an opportunity to saturate all the parts within, then allowed to drain away.

We pushed an antiseptic and antiputrescent treatment to the stump from the time of the reamputation until the termination of the case, using the following articles at different times during the treatment besides those mentioned: Iodoform, surgeon's oakum, charcoal and yeast poultices, carbolized pine saw-dust, and, finally, bromine, full strength, applying the latter after free, deep incisions had been made all over the stump, first removing with care all dead tissue. During the run of the case the treatment was tonic, supporting, nourishing, antiseptic, antiputrescent, e. g., iron, quinine, opium, chloral, chlorate of potash, stimulants, etc., etc., with a diet to suit. The temperature of the lotions and poultices was regulated by the temperature of the

limb, and the sensation of the patient. But every means used failed to prevent or check the gangrene, and ten days after the second amputation(Oct. 19th)the soft parts had ulcerated and sloughed to the extent of leaving one inch of the femur protruding and no sign of a line of demarcation.

The sloughing phagedæna was of the serpiginous or creeping kind, never following a line on the circumference of the limb and without any disposition to cease its action,but with all this local destruction in full force. The general system was holding up in a manner truly wonderful. We, therefore, concluded to remove the protruding bone, which we did, at the same time increasing the activity of our antigangrenous treatment. We bathed the parts thoroughly with the oil of turpentine and continued the other agents in increased strength.

But we soon found that we had to deal with a system without any, or but little, reserve vital force, and matters proceeded from bad to worse, until as a dernier resort we concluded to use pure bromine.

Oct. 27, we placed the patient under the anesthetic influence of pure ether, then we gently removed all loose and dead tissue, thoroughly washing the parts afterwards with carbolized water, 1-20. We then made deep incisions into every part of the stump, and injected pure bromine all over the parts, brought the soft parts as neatly together with silver sutures as possible, applied surgeons' oakum to the stump, and lowered the limb ten or fifteen degrees.

Dr. Rhoades furnished me to-day, June 7th, with a daily report of Mr. C. B.'s case, of which I will give an abstract.

The first appearance of gangrene of the stump occurred on October 7th, twelve days after receipt of injury, and date of first amputation and three days before second amputation (Oct. 10th).

Stump appeared to be doing well until October 14th, when a slight discharge was discovered of an offensive pus; on the 15th Oct. the sloughing appeared.

October 16; a troublesome cough appeared, without expectoration, and at this date the stump commenced to discharge freely of a very offensive sanies, and the end of the femur could be made out.

October 18th; cough not so troublesome,but expectorating freely brownish fetid sputa. October 19th; end of exposed bone removed.

October 24th; general appearance good, and appetite improving. Union of one-half of the flaps, from inside to centre of stump, but on the outside of stump a discharge of pus.

October 26th; sloughing appeared on the outside of the stump, and the cough troublesome.

October 27th; the discharge from the stump more copious and very offensive, and the parts sloughing extensively.

November 4th; the sloughing progressing at the rate of about one-half inch a day. Pulse 110, and quick and sharp, temperature 102°, complexion dark, respiration 36, expectoration scant, but extremely offensive. We applied pure bromine to the stump, as above described.

November 5th; had a rigor followed by high fever, with low muttering delirium. He lay in a semiconscious condition, from which he could be aroused, but would immediately relapse into his former condition.

Tongue coated with a thick dark coat, pulse 120, temperature 103°,respiration 40, expectoration dark and offensive; anorexia complete. The symptoms progressed from bad to worse, gradually sinking until nine o'clock Saturday morning November 10th, when dissolution of the continuity of body and soul occurred; the first remained with his friends,while the latter returned to the God who gave it. Rigor mortis appeared early and lasted but a short time.

Death was evidently produced from septicemia, and exhaustion of the vital powers.

The muscular part of the flaps were perfectly united at the time of dissolution, but the serpiginous sloughing continued in the skin and subcutaneous cellular tissue, including, of course, the fat, up to death, leaving some four inches of the muscles of the stump bare.

Union of the flaps would appear to take place very nicely after every amputation or coaptation of the flaps after removal of exposed bone, but the ulceration or the discharge that proceeded from it would soon dissolve the adhesions, the flaps would gap open and finally slough off.

A solution of the continuity of the flaps after a union had taken place, was the peculiar and marked feature of this case. And we interpreted it at the time as an evidence of the low degree of vitality contained in the patient. The union was not enplastic, but cacoplastic.

Dr. Rhoades reports that complete and perfect union in the muscular portion of the stump followed the application of the pure bromine, but it did not appear to have any effect upon the skin and cellular structures.

This, to me, is a very instructive, and at the same time, sad case, for while the injury was a very severe one and loss of blood and shock great, yet after recovery from the two latter and reacting from the primary amputation,

complete recovery of former health would be expected in a majority of amputations of the leg.

Or, under favorable circumstances an amputation in the upper third of the leg is not necessarily fatal, as the per cent. of deaths, even in hospital practice, is largely in favor of recovery, particularly since Lister's antiseptic treatment has been adopted. About 50 per cent recovered under the old treatment.

The shock in railroad injuries is very great, and when taken with the great laceration of the soft parts and the comminution of the bones, the mortality is greater than from any other class of injuries. Prof. Gross says that the mortality is greater after railroad injuries than it is after any other class of injuries, those from round balls not excepted. This being granted, then in a system impaired by inheritance, bad usage or bad surroundings, they are more likely to be followed by bad results than any other class of injuries with which I am acquainted.

Secondary amputations are usually recommended in this class of injuries, by reason of shock, the probability of internal injuries being very great.

I was taught by my father when I was quite young never to perform a surgical operation of any gravity in time of shock, but to wait until full reaction had taken place and with this one exception, I have followed his instructions.

Dr. C. A. Pope taught his students this aphorism: "Never perform a surgical operation if the patient is likely to die on the operating table, or in a very short time afterward. Never *cut* for show, but have the good of the patient at heart, and a clear conscience before God."

I have seen excellent results in civil and in military practice, where amputation was performed in compound-comminuted fracture, the result of direct injury, *e. g.*, sugar mills, passage of heavy army wagons, caissons, gun carriages, spent cannon ball, kick of a mule or horse, gun shot injuries, etc.

Our best pathologists claim that man does not inherit the tuberculous diathesis, but the scrofulous, and the latest teaching in the causation and essence of tubercular disease of the lungs, by way of illustration, is that any inflammatory product, whether it caseates or not, can be carried to the lungs, and act as an exciting cause in developing phthisis pulmonalis; and consumption *per se* is an inflammatory disease.

In this case the gangrene of the lungs was produced evidently by septic causes, carried from the gangrenous stump by veins or lymphatics, or both, infecting the lungs through the adenoid tissue. But two prior conditions existed in this case, inherited weak lungs, and an impaired system, or extreme constitutional depression, as it was of that form that occurs in the drunkard, the diffused form.

The intemperate are more prone to pyæmia, by reason of alcoholic stimulants exhausting the reserve vital force, and thus destroying the reparative power of the system.

Alcohol has the power to prevent decay in animal tissue removed from the living organism, but when introduced into the system of the living animal it simply acts as a lash, to whip up to action the living force, until it finally exhausts the living principle. It brings about a necrobiosis not in a part alone, but as a whole, although the weakest organ may be the first to be exhausted.

Abscesses occasionally occur in the lungs as a secondary result of ichorrhæmia or pyæmia, subject to the same conditions as above alluded to.

The difference between ordinary embolism and pyæmic embolism or clot, is, that, the latter is infective, be this by microzymes or by poisonous gases generated in the degenerating tissues.

In pyæmic infections, it is claimed that the lungs are usually congested throughout, therefore ordinary cases are very prone to secondary lesions; in fact, the lungs are the most frequent seat of secondary deposits in pyæmic conditions, but in good healthy persons, with strong, healthy lungs, these deposits become innocuous.

I think we may safely state, that the sepsis extended finally to the brain, and subarachnoid tissue, as the symptoms that existed at the close of the case show.

The next case of the series that I desire to call your attention to, is that of Mr. G. H., a brakeman on a night freight train, on the St. Louis and Cairo railway.

About 5 o'clock A. M., December 30, 1883, I was summoned by Dr. J. McMinorny, and a fireman of his train to visit Mr. H., who, they informed me, had received a fracture of the leg, about midnight, in the town of Baldwin, while in the line of his duty.

The case of the first patient above reported, had given so much trouble, and so little profit, in the way of pecuniary remuneration or reward, that people and physicians refused to carry the case without hope of fee or gratitude. The hotels refused to receive the patient, and the station-agent telegraphed the night train dispatcher, who replied, directing Dr. McMinorny to accompany the patient by train to Sparta, and see that Mr. H. was well

cared for and the railroad would settle all bills until further orders.

Upon arriving at Mr. H.'s side, I found him lying upon a door, upon which he had been carried from the train to the house in which I found him, the door resting upon the floor.

Mr. H.'s description as to how he had received his injuries was substantially as follows: "He was upon the top of a box car signaling the engineer to *back*, but instead of obeying the signal, he moved the train forward with a *sudden jerk* which threw him off of the car, and he landed upon the ground between the *tracks*.

"The engineer then reversing the engine, the back end of the train caught against his feet (he said the timbers connected with the brakes) and he was pushed backwards by and with the train. But as to when or how he received his injuries, or any particular one of them, he could not say. He informed us that he had no recollection of striking anything before reaching the ground. The night was very dark and it was raining at the time."

Upon examining his leg I found a compound-comminuted fracture of both bones of one leg, or a double fracture; the middle fragment comminuted, the fractured ends of the upper and lower portion being oblique in direction; the fractures situated in the upper and lower thirds, or nearly so. The anterior portion of the limb and body gave no evidence of even contusion, while the posterior part of fractured limb from the head up to the anterior inferior angle of the scapula was contused, the degree depended upon the prominence of the parts. In the fleshy belly of the triceps surae there existed a deep laceration, four or five inches in length, with everted edges, extending down to, and communicating with the broken bone, the entire length of the middle third ; or corresponding to the middle fragment, taken as a whole.

The leg was enormously swollen, from excessive extravasation of venous blood, and when the limb was raised there gushed out of the laceration, a quantity of a dark grumous liquid. In introducing my fingers into the laceration to explore the parts, to learn the exact extent of the injury, quite a quantity was liberated accidentally and intentionally to aid in the cleansing process.

The muscles and soft parts generally were extensively dissected by the veinous hemorrhage and the hemorrhage externally was evidently quite profuse, as his clothes and surroundings evidenced.

Dr. McMinorny had given the patient opiates for pain and stimulants to induce reaction, yet the shock, injuries, and loss of blood, had been of so severe a character that reaction had not been fully restored at the time of my first visit.

This was, like the first, a compound comminuted fracture of both bones of the leg, produced upon a railway, but differing from the other, in that, the wheels of the car did not pass across or over the injured limb.

As to how the fractures or the extensive laceration of the calf of the leg, were produced, the patient could not give any reasonable explanation, and I therefore feel at liberty to attempt to explain it from a commonsense standpoint, *e. g.*, in being pushed backward his back probably came against an obstruction; this resistance had to be overcome; to do so, the propelling force caused the bones to fracture where the least resistance existed, the force continuing; the fragments were driven through the soft parts behind. The impact of the body might have taken place at the site of the fracture of the two ribs, as they were fractured upon the same side of the body.

In addition to the fractures and laceration of the leg, we found contusion of thigh, buttocks and back, as above referred to. We also found two ribs fractured, the fifth and sixth near their middle.

Amputation as a primary operation was entirely out of the question, by reason of the fact that it was impossible to arrive at a knowledge of the limits of the parts hopelessly injured even in the limb, and when the fracture of the ribs with the probable internal injuries were considered, primary amputation would have been but little less than murder.

After reducing the fractures by extension, counter-extension and co-aptation, and getting all the fragments in position as nicely as possible, we padded with cotton wadding two nicely carved splints of deal,made to accurately fit the leg and foot on their lateral aspect, and then applied them; after which, we applied a spiral roller from the toes to the lower border of the laceration, applying it gently and evenly, but firmly, hoping to prevent gangrene, a thing to be greatly feared, not only by reason of the great amount of blood infiltrating the structures.

Retrograde metamorphosis always commences in the blood, and septicæmia, phlebitis, lymphangitis, and gangrene, are to be greatly feared; one or more is almost certain to follow an injury of this kind. And we had a system to deal with, that had run riot after the pleasures of life from a human standpoint, a constant tippler, and one that

had known practically the true meaning of syphilis. The injuries and the system when taken together could not be expected to give the best of results.

We then removed all loose tissue from the lacerated parts, cleansing them by washing them thoroughly with a solution of carbolic acid, 1—20, then over the lacerated parts placed absorbent cotton, and over all a bandage of scultetus, and finally elevated the limb 20 or 30 degrees.

Internally we gave Tinct. Ferri Chloridi in 20 drop doses every six hours, opiates as required to produce rest and relieve pain, with a generous diet.

The only dressing that we applied to the chest, was to encircle with a towel, pinned gently, but firmly around the same, so as to insure diaphragmatic respiration, and thus keep the ribs at rest.

The dressing to the leg acted admirably in emptying the tissues of the extravasated blood, and in keeping them so, aided by the elevation of the limb. But after the lapse of 24 or 48 hours it was easy to be seen that the contusion of the soft parts on the posterior part of the thigh, etc., was very extensive, deep and severe; this coupled with the other injuries, called for a sustaining, antiputrescent, and antiseptic treatment internally and externally.

About the fourth day he had a rigor, four following it, and then sweating to follow; having more or less fever of a remittent type during the remainder of his illness. The limb above the knee gave evidence of lymphangitis and phlebitis, the track of the inflamed lymphatic vessels could be easily traced by the narrow red lines, moniliform in places, and feeling like hard tense cords, extending up to the inguinal lymphatic glands, which were swollen and tender.

Edematous pitting was quite marked.

The diagnosis of phlebitis was made by reason of the knotty character of the swelling in the track of the veins, the pain, tenderness, and not only the topography of the red streaks, but the width of the bands being greater, than in lymphangitis. This is the case in inflammations of the veins, and in some of the more superficial of the red streaks, we thought we could make out the bluish color of the veinous blood coursing through the veins.

As to which one of the tunics of the veins was involved, one or all, we could not clearly make out; or whether a thrombus or embolism stood as cause or effect, we are not prepared to answer. The septic poison might have excited inflammation in the intima, or rather the media, as histologists teach that the intima is non-vascular, and then extended to the other coats: or the inflammation zone might have extended from the outer coats onwards, until it included all the coats; either would have diminished the caliber, and induce thrombus, and from this an embolism might be detached.

The septic poison or microzymes might act as a ferment in the presence of the fribinogen and fibrinoplastin,and thus produce the thrombus, giving the infective form; or both might have played part in inducing the conditions.

Warm fomentations of hops, yeast and charcoal, were constantly applied to the parts above the fractures, while we had the parts lubricated with equal parts of belladonna and glycerine.

To the open wound iodoform, carbolic acid solution, dry-earth, and carbolized pine saw-dust covered the agents upon which we depended principally.

The internal treatment consisted of iron, quinine, chlorate of potash, opiates, permanganate of potash, and oil of turpentine; the two latter we also used externally. The limb was gently, firmly, uniformly, and smoothly bandaged, and kept elevated.

About 48 hours before dissolution, a free discharge of a very offensive sanies, (sanies gangrenosa), of a dark brownish color appeared from the open wound, this being the first warning of commencing gangrene, and shortly after this he had another rigor, followed by high fever, the pulse being feeble but very frequent, high temperature, tongue dry and coated with a dark fur, urine scanty, appetite gone, a sleepy muttering delirium, which finally deepened into a comatose state. A gradual aggravation of all of the symptoms, general and local, continued until death closed the scene, exhaustion of the vital power, the result of the many causes as portayed above. Mr. H. died on the eleventh day after the receipt of his injuries.

Dr. Rhoades of Baldwin visited Mr. H. with Dr. McMinorny at the time of injury, and Dr. H. R. Guthrie assisted me at the second dressing, and continued with me in the case until the termination. Dr. Weir also vsited the case once or twice.

I would have been pleased to have discussed these cases more extensively, but our president limited me as to time, and that includes, or covers length. Not that I desired to be polemical, but I think there is food for thought and honest discussion in them *e. g.*, they furnish a text for a good temperance lecture among other things.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

REPORTED FOR THE REVIEW.

[CONCLUDED.]

DrDean.—I had a case two nights ago that illustrates the point with reference to the use of atropine, and illustrates also the importance of not giving up at once in such cases even after the patient has stopped breathing. The patient was a physician of this city. This man had gone in the evening to the house of a patient of his and complained of being stupefied or drunk, something of that sort; they didn't think he was drunk from liquor. He sent a man out to get a prescription which was for two ounces aqueous extract of opium, and when the man came back with it he took it, although he says he was not conscious of having taken it; at any rate he did take it. He was very much stupefied and they sent for a physician, and as he was unconscious the physician sent him to the Dispensary and he was from there sent to the Hospital. When he arrived at the Hospital hewas breathing but five times a minute. Probably not ten minutes before I saw the man my assistant had given him a dose of the sulphate of zinc and a hypodermatic injection of sulphate of atropine, one milligram; but therewas no likelihood of vomiting; he had gone beyond that point. We gave him warm coffee with the stomach pump as is a practice with me to wash out the stomach, the coffee answering a double purpose; I did that repeatedly, but the man had stopped breathing; the radial pulse had ceased, and the sounds of the heart were barely perceptible. My portable battery was away for repairs and I could not lose the time to take him to the stationary battery. We set up artificial breathing and kept this up for fifteen minutes at least before we could get a single gasp on the part of the patient, though we could of course hear the air go in and out as we manipulated. We gave him three or four injections of one milligramme each, that is 1-60 of a grain of atropine. I prefer to give the atropine frequently, watching the pupils, and not giving it in large quantities even where we are satisfied of the amount of opium that has been taken. I think I have seen a number of cases in which I fear the atropine finally carried off the patient, that is to say if the use of the atropine had been stopped a little short of what it was the patient might have been saved from death from the opium poisoning. In this case immediately after the second hypodermatic injection the man commenced to revive, and improved after each injection. I left him at half past two o'clock and then he was sufficiently conscious to be aroused by merely speaking very loud near his ears, and to say "what?," and the next morning he was much better; yesterday he left the hospital.

Dr. Mudd.—The query comes to me in relation to Dr. Dean's case as to what influence the man's habit might have had upon the result in this case. The same patient to which he refers is, I think, one that I pumped out about five years ago for the same condition. I washed out his stomach for opium poisoning and he recovered from the condition pretty quickly. This opium habit may have had much to do with the prompt recovery of this man from the severe narcotism which has been described.

Dr. Dean.—Do you know whether he is addicted to the habit or not?

Dr. Mudd.—I don't know how persistently he has followed the habit; I happen to know of only this instance.

Dr. Dean.—I heard somewhere not long since that four or five years ago the man had been treated for poisoningwith chloral; it may be that this was the third time his life had been saved; the patient said he had no knowledge that he had taken the drug. I have slightly known the man for many years and I was surprised to learn that he drank; I cannot say as to the opium habit.

Dr. Mudd.—I am not positive as to the opium habit of the man at the time I saw him, but I was told that he had been in the same condition several times.

Dr. Dean.—Of course that would modify matters very much.

Dr. Hughes.—This plays a very important part in the formation of conclusions as to the effect, whether a man has been more or less addicted to large quantities of opium; some men who are not called opium habitues have acquired the habit of taking quite large quantities of opium. There is a class of persons who take opium until a certain condition of the stomach is produced, and possibly of the sentient nervous system, that makes the system non-impressible to excessive doses of opium. I recently had under observation an individual who had reached 23½ grains of morphine a day according to his own account; and how much more I cannot say, because opium eaters are often great liars so far as the amount of opium they consume is concerned. We cannot always rely on their statements; but this I knew by the measurement of the quantities prescribed and from the statement of the druggist who furnished the opium and

from the family also. Now a condition took place in that patient in which, evidently, the accustomed dose of 23 grains produced no effect upon the system to stimulate it, and a condition of collapse ensued—of nervous prostration—nervous exhaustion to such an extent that it was accompanied by dilerium of an incoherent character; a teaspoonful of camphorated tincture of opium with a little capsicum and aromatic spirits of ammonia and ten drops of laudanum given every two hours sufficed to make an impression upon the patient and bring about to some extent a restoration of his former condition of nerve tone when under the influence of this 23 grain dose. Now evidently some change had taken place in the stomach by which the accustomed impression was no longer made, and at last when the 23 grains were withdrawn entirely and the paregoric, laudanum and capsicum tincture were substituted they sufficed to make an impression, whereas the 23 grains divided into three equal doses daily would not. In regard to opium poisoning the best therapeutic measure is an injection per rectum of one drachm of the tincture of capsicum and aqua ammonia in hot coffee and it seldom requires a repetition of the dose to awaken a man thoroughly from the most profound narcotic stupor.

Dr. Dean.—According to the suggestion made by the doctor, some years ago I resorted to the administration of chloral in convulsions and repeatedly succeeded in injections of the rectum when I didn't succeed in giving it by the month.

Dr. Atwood.—I desire to corroborate the statement of Dr. Hughes as to the potent influence of the injection of aqua ammonia. The worst case of opium poisoning that I ever saw—and I don't think any one ever saw a worse one—occurred to me in this city. When the man recovered he stated that he had taken one fourth of a drahm of morphia at a dose at ten o'clock in the evening. I saw him at seven o'clock the morning afterwards completely narcotized. I used the ordinary treatment including the battery, and towards afternoon discovered that treatment was futile. The man became perfectly comatose. In that emergency I gave per rectum two ounces of stronger ammonia in two ounces of water. He leaped up, hunted the water-closet, calling for it lustily, and made a break for it. To be sure I had to treat a dysentery afterwards, but the man recovered.

Dr. Mudd.—I have a specimen here which has been of interest to me, a thyroid gland. On the morning of June 7th, at about 8 o'clock, I was called to see a young man, aged 18, whom I found unconscious; there was sterterous breathing, slow pulse and irregular respiration. Upon examination I found that he had a very large thyroid gland. In the night at two o'clock he had been aroused and went to the stand to get a drink of water; he did not obtain the water but returned to the side of his bed. A room-mate aroused by him spoke but he did not answer, tumbled on the bed unconscious and remained so until the time I saw him at 8 o'clock. I could feel passing across the median line the isthmus of the thyroid body. This seemed elevated from the trachea, which was depressed. I made at once tracheotomy without use of anesthetic. In making the tracheotomy I had only the ordinary tubes with me; I passed one of them in and found no relief to the labored respiration. I then passed an ordinary gum catheter No. 10 down the trachea, a distance of two inches and a half, and he breathed somewhat easier. I then obtained a bulb sound and a metal catheter of large size, No. 13. I passed the bulb sound donw below the site of stricture, which I think was a little below the border of the sternum or near the lower portion of the trachea, perhaps two and a half inches below the cricoid cartilage; as it passed toward that point I could feel distinctly the point at which the trachea was flattened by the pressure of the tumor. I bent the catheter after cutting off the end and smoothing the cut edges with my knife so as to pass it below that point and placed it in position, when the patient breathed much more freely. He did not recover consciousness until ten hours after the operation—about 6 o'clock P. M. He was then dull but could be aroused a little; his lips had regained their color and his circulation was much improved. Fever followed —well marked on the evening of the first day—subsided on the second, but the temperature rose to 102° on the next day. On June 10th at one o'clock, notwithstanding a temperature of 101.6 and a pulse of 120 it was deemed best to make an effort to extirpate the thyroid gland. The gland as it presented externally through the skin seemed to extend well down under the sternum upon both sides so that it was full and rounded, the right side being the larger; it presented very prominently below on the left and to some extent higher up than on the right; both sides extended well up above the upper border of the thyroid cartilage and toward the angle of the jaw. The patient was anesthetized by placing a rubber tube over the opening of the catheter which projected from the neck, and to this was attached a reservoir of ether. He came very promptly under its influence. An

incision was made in the median line and the isthmus exposed. A transverse incision was made across the upper border of the sternum and over the sterno-clavicular articulations. The sternal portion of the sterno--cleido—mastoideus was then divided upon both sides. The muscles were turned back and the gland enucleated first upon the right side and then upon the left. There was less difficulty in the operation than I expected; I had thought it possible that the patient would die on the table because of the size of the tumor and its extension behind the sternum, but it was somewhat easily enucleated and the vessels secured, the larger ones being secured by silk ligatures before division. The hemorrhage was quite free at times. After the extirpation of the right side I turned it out; the gland was so firm and brittle that the isthmus broke and the right portion of the thyroid dropped to the floor. The bleeding was free but was easily controlled: the strongest adhesions were at the site of its connection with the thyroid cartilage and the borders of the cricoid; it was there quite closely adherent and I had some difficulty in removing it. The superior and inferior thyroid arteries were easily secured. The point of great interest in connection with this case was the appearance of the trachea. The trachea was exposed almost throughout its entire extent. It was flattened so that the lateral diameter of the tube was perhaps not more than one-third of the anterio-posterior diameter. The point of greatest compression of the rings of the trachea was near the lower portion of the tumor as it presented behind the upper border of the sternum. There was a question in my mind as to the ability of the trachea to hold its shape, to keep its position after the pressure was removed. The trachea tube was allowed to remain in position and after the breathing was easy and free, but the shock from the operation was great; greatest about 18 hours after the operation. At that time his pulse was imperceptible, and he was a little delirous, his breathing was irregular and it looked as if he would die. I injected atropine, applied stimulants and he rallied again and made a good recovery. The last ligature was removed about eight days after the operation. The wound now is practically well, so far as danger is concerned; he talks and breathes easily. There was no trouble here so far as I know from the disturbance of the recurrent laryngeal; there was no difficulty of respiration on account of the disturbed motion of the vocal chord, but the disturbance came entirely from compression of the trachea. The patient had suffered for three years with this tumor; it had grown somewhat rapidly during the last few months; it was quite firm in character, and during the last two or three weeks prior to the operation, or to the time when he was found unconscious, he had slept badly; during the ten days prior to the operation he had not been free from discomfort, and yet he was so well that he was attending to business, and during the evening prior to the time that he was found unconscious he had been out spending the evening with friends; he went to bed at eleven o'clock and probably by some unusual movement of the head in falling on the bed became unconscious, the breathing was interrupted by a sudden bend in the trachea; and at the time that he was first noticed by his friends they thought he would die immediately; he looked as if he were dying, but rallied somewhat, though he did not recover consciousness and was, as I say, nearly dead at the time I first saw him. The specimen is an interesting one because of its size and because of the comparative rarity; it weighed a little over 16½ ounces, something over a pound. There is a point in connection with this case that I wish to emphasize; after the tracheotomy the tube was removed several times for the purpose of cleaning it; we had no double tube that was large enough, but simply the tubes made of the catheter and they became occasionally stopped. Several times we removed them and his trachea collapsed. The patient would have suffocated if he had been left without a tube; he became at once distressed, hence I had two tubes on hand and when one was removed another was introduced. The operation was undertaken simply because there was no other course to pursue; we had no time to temporize. The man was 18 years of age and was otherwise healthy. He was born in Cincinnati and left there about two years ago and came to this city; since that time has been here actively engaged at his business—a clerk in an insurance office.

Dr. Arwood.— Do you state, taking into consideration the locality of the tumor, that there was very little hemorrhage?

Dr. Mudd.— Yes, sir.

Dr. Arwood.— Do you practice the method of dry dissection?

Dr. Mudd.— I don't know that I understand you.

Dr. Arwood.— There is an instrument used in place of the ordinary scalpel, it is made of whale-bone, or hard wood.

Dr. Mudd.— I used my finger, or the handle of my knife.

Dr Arwood.— You have seen the dry

dissector? It is somewhat smaller than the handle.

Dr. Mudd.— I don't know that I have seen it.

Dr. Atwood.— Did you do much tearing with the fingers?

Dr. Mudd.— I separated the thyroid arteries entirely that way, and with the handle of the knife, and separated the tumor from the tissue by the fingers.

Dr. Dudley.— What are you doing about preventing the collapse of the trachea at present?

Dr. Mudd.— Nothing; there does not seem to be any collapse of the trachea at present—there is no undue pressure upon the part, and I hope that the trachea will resume its resistance and be able to retain its calibre, and that it will support from the tissues adjacent.

Dr. Hughes.— Was there any disturbance of the respiratoy movement except at the time of his paroxysm, or any irregular or accelerated action of the heart?

Dr. Mudd.— I did not see him until after he was unconscious; there had been disturbance of the respiratory movements.

Dr. Hugehs.— A number of cases have been reported of disturbance due to pressure upon nerves, and it would be interesting to know what the conditiou was in this case.

Dr. Pollak.— How do you account for the patulency of the trachea?

Dr. Mudd.— I think the soft tissues about it support it somewhat; there was no pressure after the removal of the tumor, no pressure upon the trachea, and it is, I presume, sustained bv the granulations. I think probably the soft parts will help to keep it in position.

Dr. Pollak.— How long did the operation last?

Dr. Mudd.— About an hour.

Dr. Pollak.— Did you do it under antiseptic treatment?

Dr. Mudd.— No, sir; we used clean sponges, but did not use the spray. I washed the wound with a corrosive sublimate solution and dressed it with an antiseptic pad.

ITEMS.

The crematory now building by the United States Cremation society is well under way, and is likely to be popular, as several dead bodies are already in waiting for its completion in November. It is situated in East Williamsburg, N. Y., right between two cemeteries, which looks like lively competition. The structure is 74 feet long by 40 feet wide, and will look like a Greek temple, with its facade and return walls ornamented with Corinthian columns. It is to be the latest improvement in crematories. One novelty will be dispatch. The body will be placed in a catafalque in the chapel, a curtain concealing it from view. During the services it will sink to the furnace without noise, and when the services are ended, an urn will be found in the catafalque containing the ashes. There will be no intimation that anything is going on but the services for the dead.

The will of the late Professor Samuel D. Gross has been admitted to probate. He bequeathes his medical library, museum and diagrams to one of the following institutions: The Jefferson Medical College, or the Philadelphia Academy of Surgery, or the College of Physicians of Philadelphia, the choice of said institution to be made by his executor. If the institution so chosen does not accept the bequest, then it is to go to the University of Pennsylvania or the New York Academy of Medicine. He also bequeathes the sum of $5,000 to provide a prize every five years for the writer of the best original essay illustrative of some subject in surgical pathology or surgical practice founded upon original investigation.

A Chinese doctor in Arizona Territory was fined $100 because his diploma turned out to be only a laundry list.

The American Dental Association closed its very successful annual meeting at Saratoga, N.Y. on August 8th. Resolutions of thanks were passed to the railroad companies who had extended courtesies in granting reduced rates. Minneapolis was selected as the place for the next annual meeting, to be held on the first Tuesday of August, 1885. The following officers were elected: President—Dr. J. N. Crouse, of Chicago; first Vice-President, Dr. Foster, of Baltimore; second Vice-President, Dr. C. F. Rich, of Saratoga; Secretary, Dr. A. N. Harlan, of Chicago; Treasurer, Dr. G. W. Keeley, of Oxford, Ohio.

The following comes from Washington, D. C.; Acting upon information that a cargo of rags had reeently been passed by the State quarantine officers into the port of New York, the Secretary of the Treasury has instructed the Collector of Customs at that port to allow no rags to be impor' unless positive proof is produced that they come from non-infected ports and are in themselves entirely free from infection. The fact that the vessel had a clean bill of health and has been given a permit to pass by the local quarantine officer is not to be considered conclusive proof of the non-infected condition of her cargo. These instructions are based on a clause in the sundry civil bill anthorizing the President to spend a sum not exceeding $100,000 to maintain quarantine at ports in danger, and to aid the State and local boards in preventing and suppressing the spread of threatened or actual epidemics. The Surgeon General of the Marine Hospital Service has advised that the importation of rags be totally prohibited, for the present at least, because, as he says, they are companions of filth and disease, no matter from what quarter of the world they come, and so are always liable to convey disease.

When legal life begins. The highest tribunal in Berlin has decided that a fœtus becomes a legal human being as soon as labor begins.

The death rate of London for 1883 was the lowest recorded in twenty-two years, while the marriage and birth rates were the lowest ever recorded.

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EDITORIAL CHANGE.

On accepting the editorial quill from the hands of Dr. Julius Wise I am not prepared to announce a specific programme. I will but say, that I hope, together with the very able co-editor in Chicago, Dr. R. Tilley, to carry on the REVIEW in the progressive spirit that has hitherto characterized its management. The scope of the journal will be much enlarged by the addition of a Gynæcological and Obstetrical Department separate in itself, yet a part of the REVIEW. As already announced Dr. Engelmann has agreed to edit this addition and his name is a guarantee of its merit and value.

All in all, there is no reason why this journal should rank second to any of its older Eastern cotemporaries.

ROBERT LUEDEKING.

St. Louis, August 23, 1884.

THE PARASITE OF YELLOW FEVER.—We learn the following from the Paris correspondent of the British Medical Journal: M. Rochard made a verbal report, at a recent meeting of the Academie de Médecine on Dr. Domingos Freire's (of Rio Janeiro) researches on the micro-organism and the inoculation of yellow fever. M. Lacerda has described a fungus observed in the vomit and urine of yellow fever patients, which Dr. Freire declares is a chance parasite, and has no connection with the disease. The parasite discovered by Dr. Domingos Freire, and believed by him to be the specific micro-organism of yellow fever, examined under the microscope, presents the aspect of black spots, which lengthen out, become round, and finally constitute cells of different dimensions, which break up with a number of yellow granulations. He terms this micro-organism cryptococcus. He withdrew a cubic centimetre of blood from the heart of a human subject that had died from yellow fever, and injected it into the saphenous vein of a rabbit or guinea-pig, or into the areolar tissue. The animals died soon after the injection was made, and their blood used to inoculate other animals caused their speedy death. Fowls were not affected by the influence of the virus. A temperature of 100° Cent. does not lessen the septic property of the virus, but 170° Cent. renders it sterile. Dr. Domingos Freire has also found an organic substance, a ptomaine, in the blood of animals which had been inoculated. It is very virulent, even in infintesimel doses. According to this observer, the earth of cemeteries and of some streets in Rio Janeiro, after being diluted and filtered, produces yellow fever when used for inoculation.

THE INFLUENCE OF PREGNANCY UPON THE COURSE OF INSANITY.— It is a prevalent opinion in the laity and also among physicians that pregnancy favorably influences pschychical disturbance, yea that such a condition often proves curative of such affection. Dick and Erlenmeyer among writers on psychology incline to such a favorable view. On the other hand Marcé, v. Franque, Nasse, Ripping, etc., hold the opposite view and base it upon extensive observation. Bartens of Bonn holds the latter opinion and asserts that pregnancy in nowise improves, and more probably clouds, the pro-

gnosis. He refers to the disturbance caused even in normally constituted women by the circulatory changes incident to pregnancy, the chemical alterations and the nutritive revolution in the whole body, especially in the brain. In women of good mental balance irritability or depression ensue, owing to these elements and insignificant, accidental circumstances may bring about true mental aberration. These being the results in healthy individuals, how much more incisive must be these impressions in the insane. Generally the cases of insanity in the course of which pregnancy is established are psychoses incident to the puerperal state. The renewed impregnation then usually serves only as a continuance and aggravation of the nutritive disadvantages already existing. B. reports twelve cases of psychosis and intercurrent pregnancy; all but two had puerperal mania or some other form of mental disease referable to the puerperium. Of this number two patients were improved, one died, eight became incurable; only one woman recovered, and she was of a very erotic disposition. Marcé has stated that pregnancy is of good influence only in just such cases, in women of pronounced and ardent sexual impulse.

The Psycho-pathology of an Application for Increase of Pension is given in the Medical Record. It is too good an example of what can be done by our psychological experts, to permit it to go by unnoticed. It is as follows: A pension surgeon at Washington sends us the copy of a very ingenious medical certificate which was sent to his office a few days ago with an application for an increase of pension.

"Affiants discover upon the right instep of the applicant a soft and movable cicatrix, as if the integuments had been ploughed up by a bullet. We find no deformity or displacement of the tarsal or metatarsal bones, and no erythema or hyperæsthesia of the surface of the wounded region.

Affiants also discover that the applicant's disability is greatly increased at times by the reaction of the above described cicatrix on the higher nervous centres. We believe that a sensory impression, conveyed from the cicatrix through the second pair of cranial nerves, is intensified in the cerebrum by certain processes of intellection, one of which is known as expectant attention. The impression so intensified and modified is then reflected to the region where the trauma was sustained, and the applicant's sufferings are increased many fold. Under such circumstances, and at the same time when these reflex nervous phenomena are manifested, we believe that the applicant's disability is extreme, and that an increase is urgently indicated as a therapeutic measure.——, M. D.,—— M. D."

The Training of a Medicine-Man.—We learn from the Popular Science Monthly that the medicine-man among the Indians of French Guiana, who is called the *piaye*, is priest, doctor, wizard, and mountebank, chiefly the last, all in one. He prepares himself for his office by going through a course of special training, full of terrible experiences, to which he submits willingly for the sake of the advantages he expects to gain. The candidate, who is supposed to have had some kind of a call to the office, must obligate himself to submit, without flinching, to all the processes of discipline that are to be imposed upon him. Except for a little instruction in the concoction of poisons, the discipline has no reference to the medical art. For six months he is put upon a diet of manioc, which he must feed himself with his feet, using his hands only to guide his feet to his mouth; then he is allowed dried fish, to be taken in the same way, and tobacco, of which he must swallow the juice. Having survived this for a year, he is "examined" by being held under water till he is almost strangled, and then made immediately to walk over red-hot coals, deliberately. Another year of the former regimen is given him to prepare for his second examination, when he is tied up in a bag full of red ants, previously well shak-

en to a pitch of savage excitement. He is next treated to a most ingeniously devised application of wasp-stings, and to a trial of snake-bites, against which he is permitted to fortify himself with antidotes. He may also be hung to a flexible rod by hooks stuck in his ribs, or by his thumbs and toes, and kept awake for a week at a time. After this course, he is permitted to assist his master by beating the drum around the sick man's hammock, and howling to drive away the evil spirits. His final trial is the drinking of a decoction of carrion and tobacco-juice, after which he is regarded as fully qualified to work upon the fears of the tribe, and extort from them all the service and tithes and tribute, and levy all the blackmail his victims can be forced to pay. As for medical treatment, there is none of it, not even the herb-doctoring; and that constitutes the chief advantage of the system.

The Proposed Anatomy Bill for Illinois. — Certain officials wielding a small amount of authority in connection with the Cook County Hospital have done all in their power to make the study of anatomy in the Chicago Colleges as difficult as possible. But there is nothing so efficient as opposition to develop hidden strength, and we believe that the demonstrators of anatomy, having been obliged to show fight, promise well to win a complete victory. Some several months ago they issued a proposed amendment to "an Act to promote the Science of Medicine and Surgery in the State of Illinois." It was manifest, however, in that proposed amendment, that their effort was to get their present needs supplied with as little change as possible, and the consequence was that that proposed amendment would have proved as unsatisfactory as the old act. They have, however, now formulated an amendment which, we think, will hold water. The major part of it is taken from the Statutes of Philadelphia.

It may be a matter of no great importance, but we would suggest that an extra clause should be added to Section I, making it unlawful for one college or school to have more than a certain number before the others are in receipt of a proportionate number, unless it be with the mutual agreement of such colleges or schools. Moreover, we think it will be necessary to make some provision for the proper disposal of the remains of dissection.

We feel sure that the demonstrators, or rather, the medical men in Illinois, will succeed in securing the desired legislation, but we trust those who are actively engaged in its prosecution will spare no efforts to make the amendment pass into law with as large a majority as possible. As a reproof to those officials who have acted so ignominiously, we publish elsewhere in the Review the proposed amendment. The position taken by the Illinois State Board of Health expresses the matter exactly:

Resolved, That the importance of the study of practical anatomy as a foundation for surgical knowledge and skill, demands that the supply of material for this study be more definitely regulated and its necessity recognized by law, and the Illinois State Board of Health respectfully urges the attention of law-makers to these considerations.

It might further be added that it is simple suicide, in the light of present progress, for any State to throw obstacles in the way of the acquisition of knowledge so important as anatomy.

The Third Stage of Labor.—On this subject the following appears in the Canadian Practitioner: On the one hand we have active interference recommended, as in Credé's method; on the other we are advised to leave the delivery of the placenta to the unaided efforts of the uterine, abdominal, and vaginal muscles. The average duration of Credé's method is said to be 4½ minutes; the duration with non-interference, according to Strassburg statistics, was from 30 minutes to 12 hours, the delivery being completed in one hour in 44 out of a 100 cases.

The Credé method is not so popular now as it was, because it is supposed to be too harsh. The plan of leaving the delivery to nature is

in more than half the cases too tedious for most obstetricians, who object to waiting from one to twelve hours. Apart from this drawback, the placenta while in the uterus, wholly or in part, does not act as a complete plug, because the rhythmical dilatations following contractions allow some hemorrhage into the uterine cavity when no external pressure is made.

There is a form of interference, however, which is decidedly pernicious, and is, we fear, frequently practiced, especially by midwives, i. e., traction on the cord before contraction of the uterus takes place. By this means, if the placenta is removed we have taken a plug which leaves the open sinuses free to bleed very copiously.

From the opinions recently expressed in discussions in New York, Philadelphia, and Hamilton, at the meeting of the Ontario Medical Association, we find the majority are in favor of a middle course, which is, we think, judicious in all respects. The hand should be placed over the uterus during the delivery of the child, and should be retained until the expulsion of the placenta takes place. By this procedure we acquire an exact knowledge of its condition. By gently pressing or kneading with the tips of the fingers, the uterus can generally be kept contracted so as to bring its walls in contact with the placenta, while the latter is retained in the cavity. After a time (not less than half an hour), we may commence more active pressure, which should be applied during the ordinary uterine contractions. During this time we have, first, the separation of the placenta from the uterine walls; second, its expulsion from the uterine cavity; third, its expulsion from the vagina; and, if assistance be required in any or all of these stages, it should be rendered by pressure applied from behind, and not by traction on cord, or removal by hand introduced into vagina or uterus. By following these simple directions the placenta may be delivered, as a rule, with ease and safety within an hour.

THE COLD BATH TREATMENT OF ENTERIC FEVER.—In Brathwaite's Retrospect for July, 1884, there are three instructive articles side by side on the above subject. The first by Sidney Coupland speaks of the process of sponging, the compress or pack and the bath. The latter he characterizes as "the most powerful anti-pyretic agent we possess and the only measure that has succeeded in saving life threatened by hyperpyrexia." He admits the difficulty there frequently is in carrying out "Shivering," he says, "is an invariable result of the immersion, and sometimes this is so severe as to necessitate a curtailment of the process; I have rarely seen any serious collapse occur but often consider it advisable to administer a little stimulant." "Occasionally," he says further, "the dread of the bath is so great as to render it unadvisable to pursue it." In further discussing the subject he gives us the percentage of deaths from enteric fever in the Middlesex Hospital for seventeen years as 14.8; and gives the mean mortality in the London Hospitals as about 15 to 18 per cent. Following this is a table of statistics from German physicians giving the aggregate as only 8 per cent. Although he speaks of treating eighty-nine cases mostly with the bath he does not give his mortality. The general rules he thus formulates:

"As to the rules, so far as it is possible to formulate any, of the treatment, they may be summed up as follows:—The patient should be as lightly covered as possible, and whenever the temperature reaches 102° sponging should be practiced; but if, as mostly happens, the pyrexia cannot be adequately controlled by this measure, then the bath treatment may at once be commenced. The temperature of the bath may be about 75°, and the time of immersion ten minutes; but this may be varied, as already explained. If possible, bodily temperature should not be suffered to rise above 103° without having recourse to the bath; and, if this entail the repetition of the bath more than every three hours sponging may be practiced in the intervals, or quinine given after a bath. The treatment must not be abandoned, in the face of pulmonary complica-

tions, as bronchitis, congestion or pneumonia; but when necessity compels a resort to it in the later stages of the fever, and symptoms of grave intestinal lesions are present, caution should be practiced in bathing, for which it is well often to substitute the application of compresses or cold sponging. If there be intestinal hemorrhage or signs of peritonitis, the bath must not be given. Although by aid of stimulants bathing may safely be practiced when the pulse is rapid and feeble, I should regard extreme debility, especially in old subjects, or the presence of organic heart disease, as distinct contra-indications for its employment. It is not prudent to relax rigid dietetic rules, although the patient, under the influence of the treatment, may have the digestive organs so improved as to create a craving for solids before actual defervescence sets in."

Then follows an article by Dr. J. S. Bristowe in which he refers two cases of death as probably directly referable to the influence of the cold bath. The lungs in both cases were in a condition, says Dr. Bristowe, which he never recollected to have seen before in enteric fever. They were small, slate-colored, and almost empty of air throughout. They were in a state of universal collapse, without any trace of actual pneumonic consolidation. He could not help regarding the condition of the lungs as a consequence of the repeated application of external cold.

He further refers to a conversation with a young Austrian physician visiting London for a few weeks, who assured him that the use of the cold bath in enteric fever had almost died out in Austria, and some other parts of the continent; and that even in Prussia it is scarcely in use, excepting by two or three enthusiasts who have identified themselves and their reputation with it.

Then follows an interesting article by Dr. J. Haddon, taken from Edin. Med. Jour., April, 1884. He has tried the various methods and gives his opinion in favor of affusion or a shower bath, and, although he himself has used cold water, expresses the opinion that warm water would do just as well. He claims, moreover, that the temperature is by no means, the most important feature in fevers, claiming to have been confirmed in his opinion by the record of the case of a young lady, who, from some spinal injury, had a continuous temperature of 122°(?), without any disturbance of the digestive or other organs, showing, in fact, none of those symptoms for which the pyrexial state has been blamed.

He further adds that at a late meeting of the London Medical Society Dr. Samuel West and Dr. Maclagan questioned the truth of the statement that a high temperature is of itself dangerous. "So far," he says, "as I am aware, no attempt has been made to prove such a statement. It is a pure assumption, without one single fact to support it; and yet, owing to its frequent repetition by those who are recognized as authorities, the bulk of the profession has come to believe that it is true, while our teachers and text-books do not fail to give effect to the general belief."

Gun-Shot Wound of the Stomach—Successful Laparotomy.—Gun shot wounds of the abdomen, although they do not often occur, may at any moment confront any one of us in actual practice. The following simple case is taken by the American Practitioner from the British Med. Jour. Professor Kocher of Berne, has recently operated with success on a case of gun-shot wound of the stomach. A boy, aged fourteen, was admitted into hospital half an hour after receiving a wound in the region of the stomach, from a pistol shot aimed at him from a distance of about five paces. He was pale, and complained of abdominal pain; the abdomen was swollen, and distinctly dull on percussion inferiorily. Pressure on the abdomen caused pain. A quarter of an hour after hiccough, severe epigastric pain, vomiting, pallor, and symptoms of collapse came on. There was tympanitic resonance from the ensiform cartilage to the umbilicus, with complete dullness from the navel downward and in the flanks; the lightest percussion caused severe pain. Three hours after the injury lapar-

otomy was performed. On opening the abdominal cavity in the region of the navel, a great quantity of dark blood escaped. The bullet-wound was discovered with comparative ease; it was situated on the anterior surface of the stomach, toward the greater curvature in the direction of the fundus. The wound was circular with sharp edges, and about half an inch in diameter. The bullet could not be found, nor was there any aperture of exit. The edges of the wound were united, first with two catgut ligatures, like an ordinary wound, and then a continuous silk suture was applied for the distance of about an inch, so as to invert the serous coat around the wound. Recovery was retarded by an abscess which formed in the track of the sutures in the abdominal wound. Professor Kocher declares that, considering the impossibility of recovery in cases of gun-shot wound of the stomach when active measures are not taken, it is a duty of the surgeon to perform laparatomy whenever an injury of that kind is suspected.

McDade's Formula in Syphilis.—It will be remembered by some of the readers of the Review, that about a year ago when this formula was heralded before the profession, we did not hesitate, notwithstanding its high recommendation, to give an opinion unfavorable on theoretical grounds as to its value. As it has now been tried by a good many who were more credulous, we cannot do better than quote from the Therapeutical Gazette relating to its present position. "It is now," says the Gazette, "about a year since the preparation was placed before the profession, and the time which has intervened has been sufficiently long to test its merits, and a sufficiently large number of reports have been made to form the basis of an opinion. Contrary to what there seemed to be ample grounds for expecting, the evidence has signally failed to corroborate the original claim for the compound. We have published such of this evidence as has been submitted to us, among which is, notably, the report by Dr. John Godfrey, of the U. S. Marine Hospital Service, in the March number of our present volume. Other reports have appeared in the pages of our contemporaries, and at the late annual meeting of the Medical Society of the State of Tennessee, the report of which is published in the Nashville Journal of Medicine and Surgery, Dr. Glenn read a paper affirming, as a result of his own large experience, and that of Dr. Douglas, also of the Marine Hospital Service, that the McDade treatment of syphilis is a complete failure. The paper was discussed by members of the society, and not a single favorable opinion was expressed by any who had subjected the compound to the crucial tests.

Naturally, in view of the failure reported, the reader will seek some explanation whereby the discrepancy between the original claims and this failure may be accounted for. It will not occur to a single reader, even in the form of the shadow of a suspicion, that the lamented Sims, without considerable grounds for his indorsement, lent his great name to bring prominently before the profession his friend, Dr. McDade. Doubtless, his confidence in Dr. McDade's claims was largely instrumental in drawing from him the endorsement, but he would scarcely have risked his reputation as a scientist and as an honest man, on the honesty of even a friend in whom his confidence was great. He was satisfied beyond a peradventure, that the mixture had wrought results more excellent than the mercurial or other methods of treatment had ever effected. Why then, has it not done so in the hands of the gentlemen who submitted it to impartial trial during the past year? The only explanation which we can suggest to account for the discrepancy, lies in the fact that the patients among whom Dr. McDade and his predecessors, from whom he received the formula, practiced, were negroes and Indians. It is, unquestionably, a fact that different races are differently affected by the same drugs, and it is possible that we have another illustration of the fact in the difference between the action of McDade's formula on Caucasians and that noted on the negroes and Indians, its success among whom

furnished such ample grounds for the hope that a really valuable compound had been discovered."

PACENTA PREVIA.—The following is from an article by Dr. E. J. Foster in the Boston Medical and Surgical Journal:

"When the placenta is situated over the os there can be no absolute safety for the mother until delivery is accomplished; a hemorrhage of such an extent as to rapidly prove fatal may take place at any moment when once the placenta from any cause becomes separated from its insertion. In such cases as this this method seems particularly applicable, for while we have the means of rapidly terminating the pregnancy, the presence of the hand in the os can to a great extent control the flooding.

On the 8th of January, 1883, I was called to Mrs. R., forty-eight years old, born in Ireland, of previous good nealth. She had had ten living children without more than the usual amount of trouble, and one miscarriage eighteen or nineteen years ago. Her last child was born in November, 1875. While carrying her sixth child she menstruated throughout her pregnancy. This was probably a partial placenta previa. At my visit late in the afternoon I found her in bed, and she gave me the following history of the present pregnancy: Motion was first noticed about 6th August, 1882. Her general health had been good with with the exception of heart burn, for which she had taken magnesia and other remedies without relief. Her bowels were regular. About 5 P. M. Thursday, 28th September, without having any pain, she passed a few clots; again on Sunday, the 31st there slight flowing without pain. From then one week passed and she soiled only two cloths until the midnight before my visit, when she awakened from sleep and found blood in the bed; the flowing lasted about half an hour, then slight pain in twenty minutes and more blood, little if any after and no pain except as was caused by the motion of the child. Examination per vaginam settled the diagnosis.

Believing, as I have before stated, that while pregnancy lasted there was no safety for the mother, and that the serious character of the case needed prompt interference and careful management, I asked and obtained the services of Dr. W. L. Richardson in consultation. It was decided at once to proceed to induce labor. After stating to the patient the chances of leaving the case to nature to consent was readily obtained. The patient was etherized, manual dilatation performed, at quarter of two A. M. a living male child was delivered by version, the operation not lasting over three-quarters of an hour. There was comparatively but slight loss of blood. Dr. Richardson, who performed the version, found some difficulty in bringing down the foot and unavoidably fractured the femur; as he is present, the explanation of this accident I leave to him.

I am happy to record the ultimate recovery of the mother. Last week I heard the child was running about."

CONTRIBUTIONS.

SEX—PRODUCTION. 1

ASHLAND, NEB., July 30th, 1884.

DR. SCHENCK, St- Louis.

Dear Doctor.—In a report of the discussion of Dr. Funkhouser's paper, WEEKLY MEDICAL REVIEW, July 5th, page 16, you are reported as saying: "One of the old theories is that the ovary is but a receptacle for surplus material," etc.

Now I was so conceited as to believe that this idea expressed by Waldeyer had originated the line of thought first expressed by myself in a paper read before the Nebraska State Medical Society, Session '79, entitled: Sex-Production.

I there claimed, that surplus material, left over in the formation of the asexual being, was deposited upon the Wolfian bodies and

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1 Several subscribers who read Dr. Schenck's part of a discussion on the above subject, published in the REVIEW some weeks since, expressed a desire to hear from him at greater length. At our request the doctor kindly consented to give his views in full as embodied in the article.—EDITOR.

that this surplus material stimulated these latter organs into continued growth and transformed them into ovaries, the surplus material above spoken of, being, by higher development, metamorphosed into ova. The spermatozoa being the first plasmogenetic endeavor of the organism, and the formation of their plasma (bioplasm) the preceding successful autogenetic effort of the individual· This is not quite what you said, but your statement surprised me, as I have seen nowhere anything like it, and my observations were based upon statements made in Stricker's Manual of Histology, by W. Waldeyer, on pages 528 and 529.

Reading those pages carefully, you will find, that "the ovary is but a receptacle for surplus material" is not an "old theory," but a fact, never gainsaid, or successfully contradicted. These facts being kept in view, how trivial some of the speculations upon the subject of sex production must appear.

Please excuse the liberty, when I request you to cite the book or source of your information upon this matter. I should like to look it up for my satisfaction, as I am, and have been, very much interested in it.

Very truly yours,
A. S. v. Mansfelde.

No. 2801 Olive St.,
St. Louis, Aug. 9th, 1884.

Dr. A. S. v. Mansfeld, Ashland, Neb.

Doctor.—Your letter of inquiry of the 30th ult. has been handed me by the Editor of the Weekly Medical Review, with the request that I would reply more in full upon the subject than the interrogatory would seem to call for. I do this, not that I have anything new to offer, for I use others timber, but in order to present a structure that may be of interest and whatever is valuable may be utilized in the effort you are making to build up an investigation.

The scope of this subject commences with creation and ends only with the Creator. The soil of no brain has been too rich not to be cultivated with the thought of the origin of life. It is the problem upon which our greatest minds are feeding. Pasteur with his turnip, bringing it into existence—Lister with his carbolic acid endeavoring to suppress living germs—Bastian starting from Paris to defend the theory of spontaneous generation and Tyndall climbing the alps with his jugs to deny it—Darwin with his theory of origin and Leydig with his comparative anatomy—Koch with his bacillus tuberculosis and cholera-microbes, and the chemist's making and the German capitalists cornering on germicides. From the time when Issachar sent to Leah mandrakes or love apples. From the time when Hulda, the goddess of marriage, sent bridegrooms to maidens and children to the married. From the time when Napoleon the First put away Josephine, to that of Napoleon the Third, when we see Marion Sims with seminal syringe in hand, to throw well up into the womb of Eugenia the royal sperm of Josephine's offspring. From the time when Moses told of the how and when Adam was brought forth to the time when we individually appeared upon the scene, it has been a continued series of years of inquiry. From the fables which involved the studies of the wise men of the East to the story of our own nurse, accounting for our origin in the hollow stump, it has always been a point of interest at which each one halts for information and the ear of each erects to hear. From the throne to the hovel, from the May-apple to the persimmon, from the love-powder to the potion, from the conical os to its sections—all show the universal desire to look into and find out the physiology of generation, and yet it is all told in one story how the germ met the sperm cell—there is a point in which life is so continued that its only object is for its continuance. The retort says the chemist has its mysteries—the fecundated egg says the embryologist has other and stranger mysteries—the talisman of the retort is chemical affinity—of the fecundated egg is life. There is somewhere a germ and a germinal spot. Somewhere a key which needs but a pressure to arouse the current of life's annunciation.—As to the organ of Rosenmüller how that and by what process two ovoid bodies appear, which are developed into the testicle for the male, and into ovaries for the female—how that the two ducts at their borders—how that in the female one duct disappears and the other forms the Fallopian tubes. We do not know, and I believe it is better to admit our ignorance instead of giving as startling truths the coinage of our imagination. There is a thread to the labrynth of life which I doubt not never was spun for the hand of man. Many of the causes which contribute to the formation of the human body have and always will elude our research. We may use pollysylable nomenclature, such as parthenogenesis, etc., but such words are like the chemist's action by catalysis, an elegant manner of stating, we do not know. After all; what we know or feel we know of these things, is simply the fact that all life comes but through life.

While the ancients understood that the higher animals required a concourse of sexes they thought that many fishes, insects, etc.,

were produced spontaneously. The fact that the young are in a larval state and bear no resemblance to their parents—this was the view which misled Aristotle and his followers —but now through the investigation of Redi and Vallisneri, the former of whom showed that organic putrefactive changes did not develop living organisms—the latter showed the metaphosis from eggs—then sexless larvæ then perfect beings; thus have Pouchet, Bastian and others been driven from meat and maggots to infusions and infusorial animalculæ and they will be driven horse, foot and dragoon from their present position by the force of scientific research under the leadership of Pasteur, Lister and Tyndall. The question being settled that the concourse of the two sexes is essential, the point next in the minds of the old writers was what such action involved, that each sex had a seminal fluid was by them accepted. Pythagoras thought that a vapor descended during coitus. Descartes and his followers believed that there was a fermentation which took place in the womba nd the fœtus was the result reached; the view was common that in some general and confused manner there was a chemical combination, and so far did some of the chemical theorists go that they contended that the male secretion was acid and the female alkaline; that a double decomposition took place and the fœtus was precipitated. Empidocles taught that there was a combination of the male and female element, and this was the view of Hippocrates. Empidocles was a materialist, his idea was that there was equivocal generation. There has always been a great diversity of opinion on the theory of generation and all those who were desirous of distinguishing themselves made a point of embracing one sect or another—some philosophers considering the extreme divisibility of matter and learning from the microscope that transformation is but the development of certain parts that previously existed. So they concluded that all regularly organized bodies received their form from the beginning; that the first of each germ and species contained by involution the numerous millions of succeeding generations. Bonnet in his theory of inclusion contended the germ pre-existed in the ovary and egg of the female. The germ contained within itself and ready formed all the parts of the future organism. A late physiological writer has computed that if the world is six thousand years old and each generation thirty years, since Adam and Eve we would have two hundred generations with about a thousand million human beings at present on the earth. Thus Eve's ovary must have been well inhabited. This view is like the view of original sin on the part of the theologian. If Bonnet's theory be true, said an old opponent, then the first tape-worm must have been in the body of the first man, but in Genesis it is said that such things were created before man—thus if only found in the intestine of man this pest must have been in the body of the universal progenitor, living in the earthly Paradise of the Garden of Eden. Le Clerc hoped if so, they were in the form of eggs and were not hatched until after the disobedience; it may be that the tape-worm may after all have been the motion power of original sin forcing an uncontrollable hunger in Adam, or inducing him to experiment on anthelmintics in same manner that we now use the pomegranate. Buffon promulgated the theory of organic molecules that the bodies of all animals were minute particles possessing vital endowment—the particles were indestructable and indestructable in character; there was no destruction of life in nature. Each organ and each part of an organ select those which are like its own; all excess of material is deposited in repositories which are the ovaries and testicles; these fluids contain all the elements common to either sex. During infancy and childhood all these molecules are used in the person's own nutrition; of course, many of these theories were ephemeral. Others seemed to have much of vitality in them yet, Haller staggered them by the view which he took of fecundation and development. Leeuwenhoek throw them to the ground, when he showed that the moving particles in the semen, were principles or rudiments of a future animal, requiring only a proper habitation, and Dr. Graaf gave them their death blow by his view of the ovule in the Graafian follicle.

The next question for consideration, and it is an old one, is, do both sexes join in the operation of forming the embryo or is it formed by one and brought into action by the other. From the great Hippocrates downward to Harvey, the credit of furnishing the fœtal embryo was given to the female in oviparous, but she had to share it with the male in all viviparous. The old writers thought that man, from his superiority, furnished the higher order, and woman the lower order. The vapor which Pythagoras thought descended during coition from the male, came from the nerves and brain and went to form these parts in the new being; while the grosser tissues were formed of the blood and humors contained in the uterus. Aristotle in the same view as Pythagoras thought that the material of the embryon were formed by

the catamenial blood and that the male semen imparted the principles of life. The philosopher of Agrigentum asserted that the embryo is not the product of the semen of one party, either of that of the male or of that of the female, but that it results from a mixture of each. Anaxagoras believed that the embryo or fœtus proceeds solely from the paternal semen and that the mother provides only a place for its development. The eighteenth century through Naboth Morgagni, Scintourri, Monr (father and son), Haller and Hunter, made many, and extensive investigations into the physiology of generation, and the efforts of the 19th century, are but too familiar for repetition to the reader,of to-day. There is no doubt that there is a testicle force as well as an ovarian force, there is in the individual an influence exercised almost as intimately connected with nutrition as with generation. Not denying the testicle force in man, I am persuaded that,comparatively speaking,the ovarian force is more powerful. There is no metamorphosis more great, abundant and striking as they are in nature, than what we see in the change from girlhood to womanhood. Without the ovaries there is no perfection of organization, they give to woman all the characteristics of body, and that hyphererchetic development of the ovum in fœtal on infantile life known as dermoid is no proof of only the lower order of formation being the product of ovarian action. Woman needs a stronger relay power than man, she needs an endowment of that extraordinary power which enables her to withstand the period of pregnancy, the ordeal of parturition the wear and tear of the sexual and general system; from the ovaries come that power which enables a woman who so often falls to pieces of being again knit together. In conclusion, as to the exact nature of the influence communicated by the spermatazoa to the ovule is an enigma which has not yet been solved.

Next as to the views of sex production—can either sex be produced at will—no one claims that the fœtus itself has anything to do in the matter; fœtuses have a constancy of sex, unlike spirits they cannot "when they please either sex assume or both." Empidocles attributed the fact of sex to depend solely on the degree of heat in the womb, the infant being of the male sex if the semen enter a warm uterus or womb, and of the female if the organ which receives the fluid be cold; monsters are due to the superabundance or want of semen, or to the dispersion or erronous direction of that fluid, and twins are due to the too great quantity or dispersion of it. Anaxagoras explained the reason of difference of the sexes by the situation which the child occupied in the womb, boys being always on the right side and girls always on the left. Hippocrates believed that the semen secreted by the right testicle passed into the right side of the uterus, when the conception is of the male sex,and that females are engendered by the semen of the left testicle deposited in the left side of the womb; so convinced was he of the correctness of this theory that he pretended to have remarked that the shrinking of the right breast announces that the female will be positively delivered of a boy, whilst the sinking of the left denotes that the aborted fœtus will be a female. He also asserts that those men who have the right testicle larger than the left constantly beget male children. After the views of Leeuwenhoek, there were those who contended that the animalcules in the semen were of different sexes and that they copulate so as to engender male and female offspring. One of the seven rules Venetti was that to obtain sons the generative act was to be performed when the wind was northerly. The theory of Geneva has propounded the doctrine that in animals the male sex is always produced when fecundation occurs upon ova of complete maturity. Later writers have endeavored to place the fact that when coition takes place shortly before the appearance of menstruation or in animals at the beginning of heat the offspring is a female; if, on the contrary,impregnation occurs shortly after menstruation or in animals towardthe end of the rutting period, a male is the result. A later writer who seems to accept this theory accounts for it on the ground that in the early part the ovum is high up and can be reached by only a few spermatozoids, while the opposite condition takes place when the ovum is lower down. This same writer is still battling with facts and is endeavoring to give a reason for the fact that harelip in the father reappears in the female sex exclusively and also to account for the fact pointed out by Seiboldt that in some insects for instance bees, male offspring are produce independently of the male—that is without sexual intercourse. —There is to-day a large following to the theory that the comparative age and vigor of the two sexes is the controlling power. Rulfe and other writers still contend for the view of Hippocrates, while Rossiter says it is not the testicle but the ovaries which regulates this matter. The former view has been overthrown by the sex of children begotten by men who have been castrated and the latter is proven false by the results in cases after the operation of spaying has been performed.

It seems that Providence, fond as He is of double organs has placed two ovaries and two testicles so that the removal of either by disease, accident or operation, the production of species should not be interfered with, and the twice repeated command to multiply and increase should not bein vain. I congratulate the profession that there are those who so ardently investigate a subject and endeavor to establish theories after such failures in the past. Dubencourt in his work prefaces with the remark that two hundred and sixty-two groundless hypotheses had already been proposed and Blumenbach remarks that Dubncourt's own theory formed the two hun-and sixty-third. I believe these investigations are profitable. Philosophers are chary of confessing their fallibility—the search for the philosopher's stone has never been rewarded in success, yet other discoveries have been made.

To our professional studies from whence and how we come is quite as much of interest as whither are we going. On the sea of life the tide which brought us in is as mysterious in its power as the one which will take us out.

Very Respectfully,

P. V. Schenck.

ADDRESS ON THE PRACTICE OF MEDICINE.

BY T. D. NICHOLS, M. D., CHAIRMAN OF THE COMMITTEE.

Read before the State Medical Society of Arkansas at the Ninth Annual Session, Little Rock, May, 1884.

The practice of medicine is a subject that should engage the most profound thought of the world's best intellect. The prevention of disease and the mitigation of the ills to which mortal flesh is heir stand pre-eminently above all things else in the category of human duties or human privileges; for on this issue rests the temporal happiness and welfare of the inhabitants of the earth.

From a period very remote in the world's history we have authentic accounts of the "healing art." Yet, notwithstanding the antiquity of this art and its paramount importance, it is only within the last few years that sufficient progress has been made in medicine to entitle it to a place among the "learned sciences."

It is not necessary to go back to the time of Hippocrates or of Galen for material with which to illustrate the conditions connected with the means employed to restore the human corporeal system to its normal condition when departing therefrom. We may introduce the medical practice of the first half of the present century and cause it to do witness, duty concerning many of the absurd methods of the time for treating disease Yes, for treating disease for in the application of those methods of treatment the morbid condition in the abstract was attended to while the patient was ignored. Indeed, as though loth to let go the barbarous relics of the past, we have yet, even now, in the effulgent light that radiates from a thousand luminaries, some clever physicians who are plying the art curative with an armamentarium of bilities, revulsives, sialagogues, depletants, expectorants, etc,, *ad infinitum et nauseam*, to the doubtful relief, but inevitable discomfort of numerous credulous victims. Much of the irrational procedure that crept into the practice of medicine in the days of antiquity had its origin in pure unmitigated empiricism, and has been perpetuated along an unbroken line of succession to the present time, with no greater claim on professional confidence than is derived from the fact that some individuals recovered from disease after having been scientifically tortured at the hands of the learned physician of the period who, in their commendable zeal in behalf of suffering humanity, hurled their missiles of destruction at the disease that menaced the patient, all unmindful of the ruin that was being brought upon the great casket that held life itself.

No proposition in medicine should be declared an axiom until ample statistical light has shone over it and around it and through it dispelling every possibility of falsity. Viewed in this light the long distressing list of spoliative measures advocated by some of the ablest exponents of medicine of a quarter of a century ago, and which became so thoroughly rooted on the field of medical literature as to have been irrevocably fixed in the minds of many of our fathers and some of their sons, must have been established by systematic comparison with these *supposed* truths; all having been subjected to the trial of statistical research, the only crucible in which the gems in medical practice can be separated from the great amount of cumulated dross.

Austin Flint, the illustrious president of the American Medical Association, whose name will live in history as one of the greatest reformers of medical practice of the Nineteenth century, builded most wisely and far in advance of the period when, forty-three years ago, he declared in substance that no

preparatory treatment is essential, neither with mercury or other catharties, in the treatment of malarial fevers. In formulating and promulgating this wholesome tenet, the superior wisdom of this eminent clinician stands out in bold relief. And all the more remarkable is the declaration of this truth made to appear when it is remembered that, at the time of its enunciation, mercury in some one of its various chemical forms was regarded by all the standard authors and leaders in the profession as almost if not quite a specific in a majority of the maladies that prey upon human vitals, *syphilis not excepted.* Could the long array of mortals that have fallen victims to the use and abuse of mercury in the treatment of zymotic diseases, come forth from the tomb and pass in review before us, the remaining advocates of this monster in therapeutics would quail in contemplation of what might have been, yea in all probability would have been the result had calomel never been known.

In the treatment of the pernicious or malignant type of malarial fever, no doubt the, sins charged at the door of mercury will be more of omission than of commission. Not so much that the patient was killed outright by the "remedy" as that in its effects no relief was obtained. Curative agents were supplanted or deferred; last opportunities for good went by unheeded; another paroxysm was ushered in and death closed the scene.

When medical teachers and practitioners shall have less to say about "*cleansing the stomach*," "*arousing the liver*," "*restoring the secretions*," *relieving the engorgement of the portal system*," and a host of other chimerical nonsense and shall proclaim the salts of cinchona bark as chief, and a few nervines as adjuvants in the treatment of all forms of malarial fever, the myriads on earth who feed the bacillus malariæ will have cause for gratulation.

Another notable means in the list of spoliative measures which was once regarded with almost universal favor as a curative agent is *blistering.* This engine of torture had its origin in the distant past, and has been fostered in the fertile imagination of medical men and their followers up to the present time. It has lived with almost unvarying fortune or rather we might say *misfortune*, for such it has doubtless been to man, until a few years ago,when some of the distinguished reformers in medical teaching proclaimed emphatically against the prevailing custom of employing this doubtful yet painful mode of treatment.

In this, as in relation to several other hobbies in medicine, clinical observation is fast dispelling the fallacy, and the fashion of "skinning patients alive" is rapidly becoming unpopular. In the treatment of pneumonia and several other inflammatory affections in which powerful revulsives, so-called, were deemed expedient, blistering has its many worthy votaries, who, guided by sophistical reasoning, undertake to dispel morbid action from the lungs and other internal organs, by setting up like morbid action on contiguous external surfaces of the body. *Similia, Similibus, Curanter.* And in this connection if infinitesimal doses were prescribed, much unnecessary suffering might be avoided. Equally rational would it appear if we should undertake to cure a burn of one side of the body by applying fire to the other. One of America's most profound investigators, and a genuine benefactor of his race, the venerable Austin Flint, said in his treatise on the practice of medicine, which was first published in 1866, when on the subject of the treatment of pneumonia: "blisters are not advisable on account of the general disturbance which they are apt to occasion." And it may be added, because of the additional strain thus thrown on the system, occasioning further shocks and exhaustion to the nerve centers, thereby compromising the chances of recovery. The fact that pneumonia is a disease of self-limited duration, and that it originates in all its idiopathic forms, in a condition of systemic asthenia, militates against the employment of any measure of treatment calculated to lessen the patient's physical powers of endurance. In other words, it is an evident truth that has been abundantly proven that blistering in the treatment of pneumonia, in any of its stages, is not only useless but highly pernicious, and should be expunged from our list of remedies in that disease, and relegated to the shades of the past, to dwell with the lost arts.

Coming along down the road that leads from the field of spoliation, where we left calomel and blistering in mortal combat with pernicious malarial fever and pneumonia, we merge into the light that burns on the placid plain of conservatism, and here we may pause to admire the glorious progress that has lifted medical practice from the absurd barbarities of the past and placed it on a basis where suffering humanity can come and obtain relief and comfort without shuddering at the idea that the remedy is more intolerable than the pains of the disease.

Who would dare to lapse into a state of malarial coma, when to do so would subject him to the routine of cruelties that obtained in the treatment of this symptom a few years

ago. Let us present two pictures of such cases, representing in one the so-called "heroic" treatment of the antiphlogistic era, and in the other, the course dictated by the plan of modern rationalism.

The victim, a stoutly built lad of fourteen summers, had a light chill, followed by slight fever, which subsided without treatment after the lapse of two or three hours. The next day the chill came on earlier, was much more prolonged and severe, and as the febrile reaction set in and claimed full sway, a profound stupor, interrupted by an occasional spasm, supervened. Dr. Skinemall was called in, and "taking in the situation at a glance" proceeded at once to prepare and to administer twenty grains of calomel and one grain of podophyllin, which the patient automatically gulped down. "If we can get a copious action from the bowels, and relieve the turgescence of his brain," remarked the doctor, as he laid aside the pewter spoon, and wiped the molasses from his fingers, "we will save him; but while we are waiting for that to act I will bleed him freely, taking the blood from his foot and thus draw it away from his head." This accomplished, a pound and a half of blood abstracted, and yet no relief obtained! "Something must be done," said the doctor "and we must be quick about it. We will now shave his head all over and apply a blistering plaster over his entire scalp, and a foot or more down the back of his neck and over his spinal column. And in the meantime let his feet and legs be immersed in a vessel of hot mustard water. If he survives until the blister is well drawn, which may take several hours, he will recover." The anxious father said to the doctor, "it would not be proper to give my son quinine or opium now, would it doctor?" "Oh no, my dear sir," the doctor replied, "such treatment would be but little better than murder. Your son has congestion of the brain, and neither quinine nor opium would be at all admissible until that organ is relieved."

The day is gone and the night is far spent, and yet no returns from the calomel and podophyllin. The blister has denuded a large portion of his scalp of cuticle, but the doctor remarked (aside): "a poor blister!" The boy is becoming more quiet. Deep stertorous breathing has been going on for some hours. His eyes are open and fixed and sightless. The pulse is almost imperceptible. The doctor is slowly pacing the floor, breathing an inward prayer for the cathartic to act, and the blister to complete its work. He dare not bleed him further. A slight shudder and all is quiet, the boy is dead!

While this tragedy is being enacted, another lad in a neighboring family was attacked by the same malady. The disease seems to have been quite prevalent in this district, and under the management of Dr. S. the mortality has been fearful. In the case under consideration, the mother of the youth, a widow lady, knowing the almost inevitably fatal result of Dr. Skinemall's practice in all similar cases, determined to try the skill of Dr. Rational, a young and unobtrusive physician, who had lately arrived in the neighborhood. Accordingly Dr. R. was summoned, and in due time came and took charge of the case. Having duly weighed all the circumstances connected with the history of the patient, and after making as careful a physical examination of him as was deemed proper for establishing a correct diagnosis, Dr. R. determined the case to be one of pernicious malarial fever of the comatose, convulsive type, resulting from intense malarial poisoning.

The treatment in this case was begun by administering, hypodermically, a full dose of morphine, which in half an hour quieted all convulsive movements. While waiting for the morphine to take effect, the doctor prepared the following:

℞ Quiniæ Sulph.	- -	℈ij
Acid Hydrobromic	- -	gttlx
Aquæ, q. s. ad.	- -	fl℥j

M. Sig.—Give the patient a teaspoonful, every two hours.

Should it be found impossible to get him to swallow the medicine, it must be given subcutaneously; and, if neither of these modes of administration is practicable, then the quantity of each kind of medicine in the prescription should be doubled and sufficient water added to make the solution measure four ounces. Throw an ounce of this solution into the rectum every three hours and cause it to be retained by having the anus firmly held with a compress for an hour after each dose is administered. Should another dose of morphine be indicated at any time during the progress of the case let it be given as before. If the patient's heart is acting feebly, give him five drops fld. ext. digitalis and one hundredth of a grain of atropia every four hours until the debility is overcome. The treatment in this case having been carried out according to the foregoing instructions the patient now ten hours from the beginning of treatment has aroused to consciousness and, being cinchonized, the crisis is passed and he lives a witness of medical conservatism.

The gentle touch of rational medicine, in the treatment of typhoid fever, has probably been displayed to better advantage, than in

its application to almost every other severe ailment. The regulation list of disorganizing agents that were brought to bear on this disease a few years ago, is simply appalling. Some of these agents were given with the avowed object of eliminating the *materies morbi* from the system, and cutting the disease short. Others were directed toward the morbid symptoms with a view of modifying them, while still others were *thrown in* to fill vacant time. But all were made unawares to lend a helping hand to the disease by aiding it in exhausting the vital force and in precipitating a fatal termination. In the conservative management of typhoid fever every detail of treatment that might have a present or remote effect in disturbing or debilitating vital action is carefully avoided, and only those measures are employed that are fitted to the building up of animal life. "Food and rest are nature's great restorers." Hence in the treatment of this long-continued and exhausting affection a liberal supply of assimilable and highly nutritious food should be administered several times daily from the very inception of the disease and continued through its entire course. The fact that the patient has no appetite for food is no bar to its administration. Nor should this circumstance have any influence in causing a withholding of this indispensable principle from him. Fresh sweet milk, rich in cream, is unquestionably the best article of diet yet discovered for patients of this class. For an adult half a gallon of milk is about the average quantity that should be directed daily. Rest, in its most extended scope, is absolutely demanded for the successful treatment of this group. And it may here be remarked that rest from the taking and from the effects of the nauseous potions that are frequently prescribed so lavishly is no mean part of the rest that is requisite. To more completely subserve the design of promoting the patient's rest and comfort, it is the physician's duty and prerogative to insist that perfect quietude shall be maintained in the room and about the premises of the patient. The fashion that obtains more frequently in the rural districts for the neighbors to congregate nightly in the room of the sick, and with much noisy gabbling prevent the patient from sleeping, is a practice, which though designed for good, is reprehensible and should be abated.

Opium in moderate quantity may with propriety be given whenever pain or restlessness or diarrhea indicates its employment. The oil of turpentine, so highly extolled a few decades ago, by the distinguished George B. Wood, in the treatment of typhoid fever, is now very generally discarded from use in this disease. Dr. Meredith Clymer, the American editor of Aitkin's Practice in vol. 1 of this treatise, in a foot note on page 389, very pertinently remarks as follows: "The value of turpentine in typhoid fever is very doubtful. After a good deal of experience with the turpentine treatment, the writer has never seen any result which could be fairly attributable to it, except disordering the stomach."

As maintaing a good condition of the digestive organs is of first importance in the treatment of typhoid fever, we should avoid scrupulously every agent which would tend to derange the functions of these organs. And among these we find turpentine and antimony and aconite and veratrum viride and squills and last, though far from being the least, may be mentioned calomel, which is sometimes given in the so-called alterative doses, with a view of arousing the secretions and moistening the tongue, which has become dry alone from nervous prostration, induced as much by starvation as by the ravages of the fever.

Twenty-five years that have just gone by have witnessed greater progress in the practice of medicine than has been observed in any half-century since the days of William Harvey. This progress has been brought about by the rapidly increasing sentiment in the minds of medical men to doubt every theory or dogma in medicine, that is not supported by clinical evidence, presented in such fullness and gathered in such a painstaking and reliable manner as to preclude every possibility of error. The antiquated theories of the "fathers" are no longer held in esteem through sheer respect for their promulgators. But with a laudable skepticism which doubts everything in medicine and holds fast only to that which is susceptible of proof, the practice of medicine is moving onward and upward to a plane of higher attainments and greater usefulness.

There is a new disease, called in Russia 'Miryachit" in Java 'Lata.' The person affected by this disease is compelled to imitate anything he sees or hears. A doctor, dining with a friend, had just explained to him the nature of the disease, when the host, pushing forward a bottle of the best "Encore," said, "Try that, doctor, it's ten years old." The doctor mixed a stiff glass, and, about half emptying it, smacked his lips, remarking, 'tip-top, sir,' Suddenly Barney, an Irish butler, who had been present during the doctor's explanation, seized the bottle, and, filling a tumbler, emptied it at a gulp, and smacking his lips, shouted, 'Tip-top, sir.' 'What the deuce do you mean by that?' asked the infuriated host. 'Begorra, sir,' replied Barney humbly, 'shure I'm afflicted wud the latha.'

TRANSLATIONS.

ATRESIA ANI WITH INSERTION OF THE RECTUM INTO THE VESTIBULUM VAGINÆ.

BY. R. WINTERNITZ,
(Prag. Med. Wochschr).

A child two months of age was ill with an intestinal catarrh and a dacryo-cystitis at the hospital-clinic and made a rapid recovery, gaining in weight. It was well-formed and had no malformation other than the above indicated.

The malformation is not a true cloaca, as defined by Meckel, but the moderately wide rectum terminates in the vestibulum vaginæ. Although this condition does not admit of an unfavorable prognosis as to the growth and life of the individual, still the development and exercise of the sexual functions would eventually cause embarrassment. Therefore, this case is a proper one for Dieffenbach's operation, that is to say, the intestine should, after being dissected off, be inserted and attached to a wound made at a proper point in the perineal raphe. This method of operation for atresia has been attended by good results.

ON THE CAUSES OF CONVULSIONS IN CHILDREN.

BY PROF. ADOLF KJELLBERG.
(Hygiea XLV.)

There is an especial disposition in children to convulsions, to sudden clonic spasm, usually in a group or groups of muscles, with unconsciousness more or less marked. This disposition is not really due to an extraordinary irritability, either of the sensory or motor tracks, or of the reflex centers, but is due rather to the fact that the brain in childhood is more or less deficient in will power; the will does not inhibit the reflex centers. The new born babe is, it is true, less disposed to convulsions than a child several months old, but this does not disprove the assumption of a low power of inhibition of the reflex-irritability, for it is manifest, that the excitability of the motor nerves in the new-born is small and insignificant.

In regard to the causation of the convulsions the ground must be taken, that they are produced by an impression upon the point whence they emanate, the medulla oblongata or the pons. The impression may be conveyed to the centre either directly or indirectly by reflex. The convulsions that ensue at the beginning or in the course of some disease by direct irritation of the spasmodic centre are symptomatic; those that ensue by irritation of any sensory nerve and by transmission from it to the spasmodic centre are sympathetic. This classification is, of course, not satisfactory in all cases, for both causations may coexist.

Symptomatic convulsions are caused on the one hand by disturbances in the circulation, on the other by alterations of the blood itself. Among the circulatory disturbances the most common is brain anemia of rapid development; such anemia that becomes gradually and slowly established does not necessarily produce spasm.

Sudden anemia of the brain is brought about by profuse hemorrhage, by incessant diarrhœa or vomiting, by arterial spasm, (psychical impressions, fright, etc.), by compression of the skull or pressure upon a fontanelle, by anatomical changes of the brain,such as extravasation of blood, neoplasms, softening, etc.; also productive of sudden anemia may be hydrocephalus, acute œdema of the brain, inflammatory processes, fevers.

Hyperemia, as well as anemia, may be followed by convulsions, at least indirectly. If hyperemia takes place the cerebro-spinal fluid cannot find sufficient room in the perivascular spaces, that act as regulators of the brain circulation; consequently the capillaries are compressed, the circulation in them is interfered with and thus anemia of the cortex and large ganglia follows. In venous stasis the fluid in the spaces about the veins is forced out and the pressure in the peri-arterial spaces increased and so the current of circulation in the arteries made sluggish; this fact and the retardation due to the venous stasis in itself brings about capillary anemia. Thus arterial hyperemia and venous stasis both lead to brain-anemia and consequently to convulsions. Both arterial or active and venous or passive congestion occur frequently in children; especially arterial congestion oftener takes place in children than in adults.

Alterations of the blood as such are frequently associated with circulatory disturbance. High temperature is in the first rank of this class of causes; febrile temperatures increase the excitability of the nerve-elements; but not alone the increase of bodily temperature is productive of the effects but also increased heart action, or respiratory difficulty as in pneumonia, or pain as in pleurisy.

These factors in part bring about the reflex phenomena. Also in the infectious diseases the qualitative changes of the blood must be charged as productive of the convulsions; the other factors that act as concomitant are again the rise of temperature and the circulatory alterations in the brain. In the course of an infectious disease, more particularly toward the termination of such processes, anemia is usually the factor. Further alterations of the blood that cause convulsions are those changes wrought by direct intoxication and by the poisons that, are peculiar to pyemia, septicemia, cholemia, puerperal-infection, etc. These poisons are supposed to act directly upon the nervous system, possibly directly upen the reflex centres. The alteration of the milk in women that nurse by psychical impressions of violent character may also be cited here.

Sympathetic convulsions depend upon a reflex irritation and may be produced by numerous impressions of sensory nerves, either from increased irritability of the nerves, or a diminished force of the reflex-controlling centres in the brain. Burns, wounds of lareg area, extensive intertrigo, irritating foreign bodies are sources of such irritation; the mucous membranes of the stomach and intestines are very frequently the seat of the trouble. The presence of worms in the alimentary canal may be the irritating agency, but even if worms are found, the explanation of the convulsions should not be too hastily sought in this circumstance, for other and more important features may underlie and should not be lost sight of. The causation by dentition is undoubtedly proven; the objection to dentition as a source of convulsions is based on the view that teething, being a physiological process, could not bring about such serious consequences. This objection falls to the ground for unquestionably the cutting of the teeth is attended with pain and takes place at a period of development when reflex action is easily produced. In many cases there is no other explanation possible than that of regarding dentition and convulsions in the light of cause and effect. Certainly, however, other sources of irritation may exist at the same time. There is further no doubt that a hereditary tendency to convulsions exists in many families; on what this heredity is based is unknown.

ON THE REMOVAL OF THE SPLEEN.

(Deahna, Schmidt's Jahrb.)

Dr. D. G. Zesas (A. f. klin. Chir. xxviii) made a number of vivisections with a view to ascertaining the results of total extirpation of the spleen. He corroborates the former experiences that animals can very well live without a spleen, and that the splenic functions are thereupon exercised by other organs. The experiments were conducted upon six rabbits that were operated upon under chloroform. Several days subsequent to the operation the animals refused food, but after the third day were usually quite active. Four weeks after operation the blood showed an increase of white corpuscles in quantity and volume, and a darker coloring of the red corpuscles. After eight weeks the white corpuscles had decreased in numbers, the red discs still were of darker hue than normal. In a rabbit that was killed and examined one week after the operation, but a slight enlargement of the mesenteric glands was found; in another killed and examined four weeks after operation the liver was found to be large and congested, the mesenteric and bronchial glands were tumefied, hyperemic and dark; after seventeen weeks the liver was found to be hypertrophied and hyperemic, likewise the mesenteric and bronchial glands, and the kidneys. Zesas further reports eight cases of removal of the spleen in man on account of pathological alterations; there were three recoveries. In twenty cases of resection of the spleen that had prolapsed through perforating abdominal wounds, no death occurred. Spleenotomy should be performed for floating spleen, idiopathic enlargement and such hypertrophies that threaten life by rupture or strangulation; then the operation should be early and undelayed; nonreducible and gangrenous spleens must be removed.

Dr. W. Haward (Clin. Soc. Transact. xv.) removed a hypertrophic spleen in a woman 49 years of age. The patient had had "typhus" in Spain ten years previously. For eighteen months she had severe pain in the left hypogastrium. She rapidly emaciated and for ten months felt a tumor developing slowly. The left abdominal region was found to contain a firm, smooth, painless, partially mobile swelling that extended fully three inches to the right of the median line; the weight of the tumefaction was of great annoyance to the patient. The number of the white blood corpuscles was much increased. An incision was made in the median line; antiseptic measures were observed; no adhesions. In the attempt to turn out the spleen a rupture at the upper border took place, causing hemorrhage; that, however, was soon controlled. There were no further difficulties in the course of the operation. After the closure of the wound, pro-

found collapse ensued, from which the patient did not rally.

The patient died seven hours after the operation, vomiting being constant. The autopsy showed a normal condition of all the viscera; the lymphatic glands especially showed no enlargement. The spleen weighed nearly eight pounds. There was no blood in the peritoneal cavity.

Notwithstanding the leukemic condition of the patient, the operation was justified, inasmuch as no serious disturbance of the general condition existed. The collapse and vomiting were attributed to laceration of splanchnic fibres. Haward deems the removal of the spleen as justified only in the early stages of leukemia, but thinks that the proof that such an operation would cut off the pathological process is not yet complete. He also apprehends that the excess of white corpuscles alters the coagulability of the blood in such manner that danger of secondary hemorrhage is increased. This apprehension is fully justified, as many observations prove its correctness.

In the discussion that followed this report Dr. Mackenzie ventilated the question, whether, notwithstanding the poor results so far achieved, it is not proper nevertheless to remove the spleen in cases of beginning leukemia in young individuals. Dr. Clement Lucas proposed ligature of the splenic artery only in cases of simple hypertrophy. Dr. Reeves feared that gangrene of the spleen might follow. Dr. Goodhart corroborated Haward's belief that leukemic blood was of diminished coagulability, and doubted if the relative proportions of white to red corpuscles was a criterion of the degree to which the affection had developed.

Dr. B. Credé removed the spleen of a man, 44 years of age, successfully. (A. f. Klin. Chir. xxviii.)

The patient was struck in the splenic region by a brick-bat ten years previously and suffered intense pains for five days or more. About a year previous to the operation the man noticed a tumor as large as a fist in the left hypochondriac region; this tumor grew rapidly and was not painful excepting upon deep pressure. Examination showed a tumefaction of the size of an infant's head that was slightly movable, of resistent fluctuation, attached upwards and to the left and was covered by intestines and omentum. The diagnosis was undetermined between hydronephrosis and cystic spleen. An incision of the abdominal wall was made to the left of the left rectus muscle from the ribs to the spina cristæ ilei, and the tumor, exhibiting thin walls, laid bare. By puncture 1350 g. of yellow, clear fluid, containing an abundance of cholesterin-crystals, was drawn off. By gentle traction the sack, occupying but the lower part of the spleen, was developed and showed numerous septa forming smaller cysts; the upper portion of the spleen was turned out easily; there was but a slight adhesion. On account of the great friability of the spleen-tissue and tendency to hemorrhage, also of the danger of septic process, and in the knowledge of the fact that the spleen is not indispensable. Credé removed the entire spleen after ligature of the several vessels in the short pedicle. There was scarcely any hemorrhage, The spleen weighed 1720 g., was 26 cm. long, 14 cm. broad and and 6 cm. in thickness. The pedicle was dropped. No drainage. Recovery in two weeks. Notwithstanding the rapid and complete healing up of the wound and notwithstanding the patient's excellent appetite, a progressive anemia became manifest. Four weeks after the operation the thyroid gland showed distinct enlargement, painful and soft to the touch. This enlargement of the thyroid continued for four months and diminished and disappeared only after a perceptible improvement in the man's general condition. In the blood there appeared eight days after the operation a manifest increase of the white lymphogenetic corpuscles and of the small red microcytes, that are derived from bone-medulla. After two months this increase was at its maximum and thereafter a gradual return to normal relations could be traced. There was no swelling of lymphatic glands or pain in bones.

Credé reviews thirty cases of extirpation of the spleen with especial reference to those in which the development of the cases and subsequent examination of the blood showed an influencing of the blood formation. The study of these cases leads Credé to the following conclusions:

1. Adults can bear elimination of the spleen without permanent disadvantage.

2. Elimination of the spleen is followed by temporary disturbances of the blood-formation.

3. These disturbances become counterbalanced by a vicarious action of the thyroid gland and the red bone-medulla.

4. The office of the spleen is the transformation of white into red blood corpuscles.

Prof. Olshausen recommends the use of elastic ligation in extirpation of spleen, possibly thus partial removal—resection as it were—might be carried out. Langenbuch recommends ligation of the splenic artery. Prof. Kuester ligated in animals the veins

and arteries at the hilus, with the exception of a single arterial and a single venous branch, by means of a collective ligature; the result was a very appreciable shrinkage of the spleen. Thereupon he carried out this detailed plan in man; he met with great obstacles and his patient died of septic peritonitis. He consequently advises against this mode of procedure.

CORRESPONDENCE.

LONDON LETTER.

To the Editors of the Review:—I commenced my last letter with an expression of my belief that the prospects of the new Medical bill were decidedly improved. I haye now to acknowledge that I was mistaken in thinking that the Government really cared about it: they did not, and it has now gone the way of, I should be afraid to say how many, of its predecessors, and been abandoned. Somehow or other we very seldom have a Government that takes any interest in medical or sanitary matters. The last Government yielded to importunate threatenings of the anti-vivisectionists, the present Government have by a semi-hysterical resolution undone the Contagious Diseases Acts, and will, I doubt not, perform the same function in regard to the Vaccination Act if their stay in power is prolonged, for, if I remember rightly, Mr. Gladstone not long ago said that his mind was open on the subject of vaccination.

But for the moment medical politics are in abeyance, and the one thing that everybody's mind has been turned to for the past week or so, has been the Lunacy Acts and their working. The case of Weldon vs. Semple has been impending for a long time and has ended in a verdict for Mrs. Weldon with £1,000 damages.

In order to place your readers in possession of all the facts, I will give a very brief summary of the whole case. Mr. and Mrs. Weldon were married in 1860 and lived together until 1875; from that time till 1878 Mr. Weldon, had not seen his wife, but allowed her £1,000 a year, and she occupied herself in teaching children music, having as she believed, especial talent in that line. In the latter year Mr. Weldon, in consequence of letters he received from wife's relations and of what he was told by others, called upon Dr. Forbes Winslow to ask him to see his wife and report on the condition of her mind. This Dr. Winslow did at once, and advised that she was of unsound mind, and should be taken care of; it was then arranged that Dr, Winslow should take her into his own asylum for £500 a year. As Mr. Weldon had not seen his wife for three years, and would not go to see her, an old family friend. Sir Hyde Bathe, went instead in order to be able to sign the order for her admission. Dr. Winslow undertook to get the medical certificates duly filled up, and for this and for his own services he received a fee of thirty guineas. He chose an old friend of his Dr. Semple and Dr. Rudderforth to examine her, and the two went together to the house and got admission to her room under false names. The evidences of insanity that Mrs. Weldon had shown were chiefly, that she had said that a dog of hers had a soul, that she could teach a child three years old to earn £1000 a year by singing, and that when in Paris she had heard a voice bidding her go to London. These were the points on which Dr. Winslow had founded his belief in her insanity, and these were essentially the facts which the two doctors put in their certificates.

Mrs. Weldon's action against Dr. Semple was for giving a certificate wrongfully and maliciously and without due enquiry. Our law requires that the examination shall be made by two medical men separately, from each other and from any other medical men, and Mrs. Weldon's point was that they had not made such a separate examination as was contemplated in that passage; she also denied having said any of the things that were mentioned in the certificates. The trial lasted several days, and from the first it was evident which way it would go. Mrs. Weldon conducted her case in person and with considerable skill, especially when she managed to get from her mother the statement that a letter she had written to Mr. Weldon some years previously had not been written under the belief that she (the daughter) was out of her mind. Dr. Semple's case was not so well managed, for the fact that a person was contradicting from memory that which had happened six years previously and of which an account had been written and produced the same day, which was allowed to pass unchallenged.

I do not think that there is much sympathy felt for Dr. Semple in the ranks of the profession. I did hear that a subscription was being made up for him, but I have seen nothing of it, so perhaps it has been dropped. I was told that, with the exception of one or two names, the committee were not men of the highest standing in the profession. Perhaps the most curious part of the case is the fact that the only similar case on record, and one which was frequently quoted during the trial, is the case of Hall vs. Semple, the then defendant being the father of the present one. It appears he has been supposed to be also the defendant in this case, for I see a disclaimer in the Lancet from him to say that he knows nothing of the case beyond what he has read in the papers. The Lancet, by the way, takes the opportunity to write one of those articles for which it is becoming somewhat notorious, abusing the alienist doctors roundly and sympathizing with Dr. Semple on the ground that he has only done what many better men have often done before him. This, if true is a very serious accusation to bring against the profession, and it is a charge that ought not to be made without good grounds.

The meeting of the British Medical Association has been taking place this week at Belfast, and from the reports seems, to have been well attended. As I was not there I cannot pretend to say anything about it at so early a date. I see that next year they will meet at Cardiff.

It is rumored that the Council of the College of Physicians have wriggled out of the dilemma, that they were in when I last wrote, in the matter of this year's Fellows, by getting a legal opinion that they could not proceed further in the matter, and so there'll be no election of Fellows this year at all. R. M.

The Woman's Medical College, of Baltimore, has adopted the three years graded course.

FOREIGN LETTER.

AHRENSBURG, HOLSTEIN, July 25, 1884.

Editors Review.—Here I am in a beautiful little country village, where I went yesterday, for a short recreation, expecting to return to Hamburg to-day, refreshed in mind and body, to go to work and select from my notes, and communicate to you such as may be of interest to the readers of the WEEKLY MEDICAL REVIEW. But one's calculations are wrong sometimes, and so I, unfortunately for me, and disagreeably to others, sprained my left ankle; so you see, I am good for one week in bed and three weeks upon crutches, with my foot bandaged up, in recumbent position. I am trying to tranquilize my pains with Collins' "Woman in White" and follow Prof. Pesca, together with his three fat and fair young lady pupils, down to the hell (purgatory) of the sublime Dante, which puzzles them and many others so much, so very much. Had I my material at hand I would occupy my time with something else; as it is, I have to content myself and you also with waiting.

However, one thing I will say. Here in North Germany you hear English spoken everywhere; if one who does not speak German already thinks to learn it here, he will be disappointed, for the opportunity to make use of the English is too great. It is also pleasing to us to find our American medical journals so well represented among the profession in this country. It is hard to find an intelligent physician here who does not keep one, and often two or three. The Medical News, of Philadelphia, and the St. Louis MEDICAL REVIEW are predominating, and Shoemaker's Medical Bulletin, a Philadelphia daily issue, is found occasionally, as well as other American medical periodicals, those on specialties in particular.

Dr. Unna, in Hamburg, tells me that, as a rule, from six to ten doctors club together and subscribe for one German medical journal, and if a German medical journal has from 500 to 600 subscribers, it is considered doing well. Economy is studied here everywhere to the smallest details. Libraries are the best customers of the journals.

The Germans think we are all rich in our country, and can afford reading matter more easily and better than they. Upon this point I will not venture to give an opinion, let every one judge for himself; but one thing is true, we need not complain and a trip to Europe does no harm to any one. Yours truly.

EDWARD BORCK.

MONSTROSITIES.

To the Editors of the Weekly Medical Review:

In the issue of August 9th, 1884, I observed the case of "A Monstrosity" reported. The peculiarities of the case are by no means unique, if credence is to be given to works upon this subject. In a work in my possession in Latin, published in the year 1667, of which P. Gaspar Schottius is the author, entitled, "Physica Curiosa, sive Mirabilia Naturæ et Artis," I find the following, among many others of a similar character, viz:

Julius Obsequens states that during the consulship of Caius Lælius and Lucius Domitius, a double-headed girl was born.

Orosius relates, that in the province of the Vei, during the consulship of Caius Petelius and Caius Valerius, a double-headed boy was born.

Lycosthenes states, that at Rome 171, B. C., a woman gave birth prematurely to a double-headed fœtus, which, by order of the priests, was cast into the Tiber.

Rabbi Moses relates that in a certain year women in Sicily gave birth to deformed fœtuses and especially those that were double-headed.

Ambrose Paré gives the representation of a double-headed girl born in Bavaria, remarkable for the perfection of all the other parts of the body, and that each head possessed faculties capable of exercise independent of the other, (e.g.) drinking, eating, sleeping and speaking; that it was accustomed on the streets to solicit alms. The magistrates, apprehensive that a similar deformity would be impressed upon the fœtus in utero of pregnant women who might see it, banished it from the country.

Cardanus writes that in 1544 a double-headed girl was born, having all the other parts of the body single, two arms, two legs, and single genital organs. "But yet when our friend Surgeon Gabriel Cuneus and my pupil dissected it during my absence, he found the œsophagus and the stomach double, but united below; there was but one pylorus, yet two series of intestines arose from it, being duplicated especially in the rectum; in this latter part they again united and terminated in one anus. Fæces were found in both intestines. The lungs also were double and at no point united. The position of the heart was a little higher than is normal, was bifid in form, resembling the Greek letter Upsilon, He did not observe whether one stomach occupied a position higher than that of the other. The liver was thick and very long, but its volume not abnormally large. The spinal processes were duplicate and separated from each other to the extent of a finger's breadth. Each series of processes was connected with and in a direct line with its own head. It had four lower incisors, but only two upper incisors; the latter were larger and more perfectly developed than the lower. The kidneys were double, but the uterus and the bladder were single. It was born at full term and well developed, even corpulent. During its birth, the neck of one having been twisted unduly by the midwife, the same day and the same hour which brought this monster to the light of day, consigned it also to the night of death. It is evident in this case, that the same event happened as in duplicated fruits. Nature endeavored to create two beings. In the early embryonic condition of its principal members every part was duly compressed and constricted, except the head, and in consequence all the chief organs, except the brain, developed as one."

Lycosthenes relates in his work on "Prodigies," many monsters of this kind. A bicepital boy was born of a servant girl at Frudino in 125 B. C.; another in 595 was born at Constantinople; and still another in 601 in a village suburban to the latter.

In the year 1514, at Sarzano, once an important town in Italy, a monster of remarkable size was exibited. The child was possessed of two heads, and other singular peculiarities. Its size was that of a fœtus of the fourth month. Its limbs corresponded in length and were perfectly formed. On the heads was hair very long and black. Between the two heads at the boundary of the shoulders, a third hand was developed; it was short and not of perfect shape. The rest of the body was well formed and without defect of any kind.

In the year 1538 a certain monster was born, and lived to attain the perfect stature of a man, double, but only in respect to head and shoulders. One of the heads presented the face forwards, the other had its face looking backwards; these were of remarkable resemblance to each other, they were alike also in beard, in color of the eyes and in tone of the voice. Desire for food, and sense of hunger were experienced by both simultaneously. Each had the same affection for the wife, with which it had become possessed. It lived more than thirty years, at which age it was seen by James Rufus, who writes, "he saw it."

Such are the extracts.

The case related by Cardanus, in very many respects, seems to be similar to the remarkable case reported by Dr. Ruhl. This, fortunately, was dissected, and may be the counterpart of many conditions found in the present case.

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SURGERY IN THE STATE OF ILLINOIS.

A Bill for an Act to amend an Act, entitled "An Act to promote the Science of Medicine and Surgery in the State of Illinois."

Be it enacted by the people of the State of Illinois, represented in the General Assembly: That an Act, entitled "An Act to promote the Science of Medicine and Surgery in the State of Illinois," approved February 16, 1874, and in force July 1, 1874, be and the same is hereby amended to read as follows:

SECTION 1. Superintendents of penitentiaries, houses of correction and bridewells, wardens of hospitals, insane asylums and poor houses, coroners, sheriffs, jailors, city and county undertakers and all other State, county, town and city officers in whose custody the body of any deceased person shall be, those to be buried at public expense: shall deliver, free of charge or expense, to any physician or surgeon (a licentiate of the Illinois State Board of Health), or to any medical college or school, public or private, of any city, town or county, upon his or their request made therefor, the bodies of deceased persons, those to be buried at public expense, to be by him, or them, used within the State for the advancement of medical science; preference being given to medical colleges or schools, public or private, and said bodies to be distributed to and among the same equally. The number assigned to each being in proportion to the students of each.

Provided, however, that if any person claiming to be, and satisfying the proper authorities that he is of kindred of the deceased, shall ask to have the body for burial it shall be surrendered for interment.

SEC. 2. Any physician or surgeon (a licentiate of the Illinois State Board of Health) or any medical college or school, public or private, before receiving any such dead bodies, shall give to the proper authority surrendering the same to him, a sufficient bond that said bodies shall be used only for the promotion of medical science within this State; and whosoever shall use said body or bodies for any other purpose, or shall remove the same beyond the limits of this State, and whoever shall sell or buy any such body or bodies, or shall traffic in the same, shall be deemed guilty of a misdemeanor and shall, on conviction, be imprisoned for a term not exceeding five years, at hard labor in the county jail.

SEC. 3. Any officer refusing to deliver the remains or body of any deceased person when demanded, in accordance with the provisions of this act, shall pay a penalty of not less than $50, nor more than $100, for the first offense, and for the second offense a penalty of not less than $100, nor more than $500; and for the third offenre, and any offense thereafter, the penalty of not less than $500, or to be imprisoned in the county jail not less than six months, or more than twelve months, or both, at the discretion of the court, such penalties to be sued for by the Health Department, as the case may be.

SEC. 4. All acts or parts of acts inconsistent with these acts are hereby repealed.

SEC. 5. Whereas an emergency exists, this law shall take effect immediately upon its passage.

The Medico-Surgical Society, of Bologna, has offered two prizes of 500 lires each. First prize, Sgarze, for the best essay on The Surgical Treatment of Pulmonary Cavities. Second prize, Gajani, The Surgery of Diseases of the Stomach. The essays must be written in Italian, French or Latin.

Dr. Truzzi vaccinated a number of pregnant women during the last three months of gestation, with a view to determine the protection, if any, afforded to the child. The results were negative, as the children were all successfully vaccinated a few days after birth.

DEATHS IN ST. LOUIS FOR THE WEEK ENDING AUGUST 16, 1884.

Small-pox		Convulsions and trismus	14
Measles	2	Heat stroke	
Scarlatina	4	Apoplexy	
Diphtheria	4	Other diseases of the brain and nervous system	4
Membranous croup		Cirrhosis of liver and hepatitis	1
Whooping cough	2	Enteritis, gastro-enteritis, peritonitis and gastritis	3
Typhoid fever	11	Bright's disease and nephritis	2
Cerebro-spinal fever		Other diseases urinary organs	
Remittent, Intermittent, Typho-malarial, congestive and simple continued fevers	10	Diseases generative organs	
Puerperal fever	1	Diseases of the locomotory organs	
Diarrhœl Diseases.		Diseases of the integument	
Under 5 years	22	Accidents of pregnancy and childbirth	
Other ages	7	Congenital debility, malformation, etc	8
Erysipelas	1	Senility	5
Pyæmia and Septicæmia	1	Surgical operations	
Syphilis		Deaths by suicide	1
Inanition, want of breast milk, etc	1	Deaths by homicide	1
Alcoholism		Deaths by accident	5
Other zymotic diseases		Execution by warrant of law	
Rheumatism and gout		Unknown	
Cancer and malignant tumor	2	*Total Deaths from all Causes*	177
Phthisis and tuberculosis Pulmon	20	*Total zymotic Diseases*	64
Marasmus—Tabes mesenterica and scrofula	19	*Total Consitutional Diseases*	42
Hydrocephalus, tubercular meningitis, etc	1	*Total Local Diseases*	49
Other constitutional diseases		*Total Developmental Diseases*	13
Bronchitis	6	*Deaths by Violence*	7
Pneumonia	2	*Unknown*	
Other diseases respiratory organs	2		
Diseases of the circulatory system	12		
Meningitis and encephalitis	3		

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Clerk of Health Commissioner and Board of Health.

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THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION, an organization that rivals in dignity and importance the American Medical Association, meets at the city of Springfield, Illinois, on September 23 to 26, inclusive. The organization emanated from the Tristate Medical Association, which embraced the states of Illinois, Indiana and Kentucky, and did such valuable work, that the cities of St. Louis and Cincinnati sought and were granted admission. At the meeting two years ago, Mr. Morel Mackenzie attended, and then, and since on various occasions, expressed his appreciation of the merit of the Society. The growth of the body was assured by its earnestness, diligence and zeal; and at last year's meeting at Indianapolis, when Dr. Wm. Porter of this city retired from the presidency and was succeeded by Dr. B. M. Griffith, of Springfield, Ill., the enlarged field and widespread good influence of the corporation demanded a change of name. Fifty papers of value were presented at Indianapolis and the attendance was fully two hundred members. Since then the roll of membership has steadily increased so that at Springfield contributions and work by the medical profession of Georgia, Alabama, Louisiana, Texas, Arkansas, Tennessee, Illinois, Indiana, Kentucky, Missouri, Kansas, Nebraska, Iowa, Michigan. Wisconsin, Minnesota and Ohio are promised. We learn that the programme in full will be issued in the first week in September and that arrangements for reduced railroad fares are being made. Due announcement of matters pertaining to this important event will be made in these columns. The readers of the REVIEW, and the St. Louis profession especially should attend.

Mr. Lawson Tait, now in Canada, has signified a wish to be present.

It would certainly be a credit to St. Louis if the next meeting could be secured for us.

The secretary, Dr. G. W. Burton, of Mitchell, Indiana, will furnish all information and solicits essays and papers.

CHANGE OR MEDICAL SUPERINTENDENTS OF COOK COUNTY INSANE ASYLUM.—We congratulate the Cook county directors of the insane asylum in that they have secured for the asylum the able services of Dr. J. G. Kiernan as its medical superintendent. We do not by this statement wish to cast any reflection whatever on the previous occupant of the office, Dr. J. C. Spray; but a change being deemed necessary, we do not think a more eligible man for the office could have been found. Dr. Kiernan is a man of recognized scientific qualifications and of large practical experience. He was assistant physician to the New York City asylum for the insane, and practically superintendent of the same for four years. He was at one time connected with the REVIEW, and is at present assistant editor of the Journal of Nervous and Mental Diseases, and of the American Journal of Neurology and Psychiatry. We are perfectly satisfied that the doctor's future record will do honor to those who have given him the office, and that the domain of medicine will be enriched from his observations.

SECALE CORNUTUM IN TYPHOID FEVER.—Amédée Chassagne (Gaz. méd. de Paris) reports 82 cases of typhoid fever that he treated in a military hospital with secale. Of his cases, he designates 15 as very severe, 22 as severe, 20 as medium and 25 as mild attacks of typhoid fever marked by all characteristic symptoms. His mortality was but 3.7 per cent., i. e., he lost only three cases. At or

about the same time, a corresponding number of cases treated at another military hospital in a similar manner with the exception of the ergot, showed a mortality of 15 per cent. C. gave the ergot in fresh powder, in doses of 2–3g, 30–45 grains, given but once a day during the acme of the fever for a week or ten days. The action of the drug was manifest by cyanosis, sweat and cold extremities; but these symptoms quickly disappeared. The only contra-indication to the use of ergot was gastric irritability. When the stomach rejected the administered medicament the addition of bicarbonate of soda proved of value in checking the vomiting. Intestinal hemorrhage, that occurred in the graver cases, was nicely controlled by the drug.

Syphilis and Cholera have been coupled by M. Dujardin-Beaumetz at a meeting of the Societé Médicale des Hopitaux. He considers syphilis as an aggravating condition, not only in cholera but also in typhoid fever. He has always observed that typhus patients coming to his service from the hospitals of Midi and Loureine (both for syphilitics) were in a bad condition. A saying at the hôpital Cochin is, that a primary syphilitic, if attacked by typhoid fever, is a condemned man. As to the action of biniodide, he thinks that the antiseptic ought to be in direct contact with the germs of infection. M. Martineau places great reliance upon this remedy when administered to syphilitics having cholera. M. Buequoy fully agreed with the first one mentioned as to the gravity of typhoid cases in syphilitics, whilst M. Féréol had seen a sufficient number recover to justify him in modifying the expressions as to extreme gravity.

Albuminate of Iron as an Emmenagogue is spoken of by Dr. Albert Blondel in l'Union Médicale. After considering whether it can be strictly considered an emmenagogue or not, he details some clinical experiences. He says that iron can be hardly considered as among emmenagogues; but, the administration of an appropriate ferruginous preparation gives excellent results in the majority of uterine affections and regulates menstruation. Especially if it is taken in small doses, avoiding putting useless quantities in the stomach, which might irritate. In those cases especially, where the iron preparations react upon the stomach, the albuminate of iron is indicated. The elaborated albuminate being the ultimate combination that iron undergoes in the blood, it becomes of great value in symptomatic anemias. A very agreeable preparation can be made by combining it with the syrup of orange peel.

A Sign of Sciatica Which is Little Known is noted by M. de Beurmann. The manner of finding it is by causing the patient to lie on his back in a passive condition, then the leg is slowly elevated, and flexed upon the pelvis. Immediately the patient complains of an intense pain along the track of the nerve and particularly at the nates, corresponding to the sciatic notch. The cause is the varied degree of tension exercised upon the nerve in these different positions. This symptom is a constant one and also pathognomonic. From the mechanism of this sign the author deduces the manner of treating it. That condition which permits the nerve to remain in the most relaxed position is the most favorable, and to do this it is only necessary to place the leg so that it will be flexed upon the thigh and immobilize it in that position.

Cleanliness in Surgery.—How steadily and, we think, surely the whole process of the antiseptic system of surgery is simmering down to rigid cleanliness, and strict co-aptation of the corresponding parts! It must not be forgotten, however, that cleanliness is so differently understood by different people. Only a short time ago we were present at an operation where antiseptics were used, but we observed that one of the assistants in threading a needle very innocently moulded the thread to pass through the needle in the mouth. Now, we claim that such an assistant as that needs a good deal of

drilling to prevent the occurrence, perhaps not of the same, but of similar mistakes. Such a procedure is not consistent with cleanliness. On another occasion, when witnessing the removal of a cancerous breast, the surgeon invited the family physician to make a digital examination of an angle of the wound to see that it was all removed. Certainly a wound should be handled as little as possible and we should claim that such a procedure would not be justifiable except under unusual circumstances. The surgeon is responsible for all that happens to the wound which his operation necessitates, and as he can never be sure that the general practitioner has not just come from a case of obstetrics, or some other professional visit equally inconsistent with cleanliness, all handling of a wound by such should be as much as possible avoided. When we become more alive to details such as these, when we are scrupulously, not ostentatiously, clean about the finger nails and cracks in the hand,when we avoid all handling of a wound, that is not called for in the completion of the operation, then shall we be in a position to throw away all these troublesome germ killers, and thus save the patient from the risk, small though it may be, of the offensive antiseptic. Kœberle says, quoted by St. Petersburger Wochenschrift: "For the good results in ovariotomy during the last few years we are indebted to subtile cleanliness and the dropping in of the stump into the abdominal cavity." Since 1880, he has used neither the spray, nor a drainage tube, nor the antiseptic bandage. We are satisfied that Kœberle has no objection to the antiseptic bandage but the love of truth and simplicity disposes him to dispense with all that is not necessary and to keep away what is noxious by the most simple means. Since he has adopted the above plan he has operated sixty-eight times with only four deaths. That gives him less than 6 per cent. . Can those who use antiseptics show better results?

Paraldehyd.—The pleasant and effective action of this hypnotic that was first recommended by Cervello, is testified to by v. Noorden, (Centr. Bl. f. Klin. Med. 1884). He administered it at the university-clinic of Giessen to about thirty patients on about 120 occasions; it was given in doses of 3-6 g., or 45—90 grains, and sleep followed in from 15 to 20 minutes, without any unpleasant sequels. Respiration was not disturbed, and arterial pressure was not much reduced. The sphygmograph showed a moderate increase of the pulse-curve, and a slight tension of the radial artery. In a patient with mitral stenosis and insufficiency, scarcely any reduction of pressure was shown, and in three males with normal heart still less. After three hours there was a return to normal conditions entirely.

The remedy proved of benefit in emphysema and bronchitis, in phthisis, in spinal and nervous disease, in myocarditis and valvular disease, in the later stages of pneumonia, in icteric pruritus,chronic rheumatism. In severe gastric disease the remedy is not well borne; in a case of advanced phthisis, with laryngeal complication, the drug was not available, causing cough, nausea and nervous excitement.

Dr. Dujardin-Beaumetz also verifies the good qualities of the drug, (Bull. de Thér. CVI). But he finds that in severe pain the relief is not equal to that afforded by opium or chloral even if sleep was induced. The sleep was light and interrupted. D-B. prescribes the medicine in a mixture recommended by Yvon, as follows: Paraldehyd 20 g; alcohol 100 g; syrup 75 g; and tinct. vanillae 5 g. Of this mixture 20 to 30 g, equal to 2-3 g paraldehyd are given at a dose.

Prof. O. Berger (Bresl. Aerztl. Ztschr. VI, 1884), has extensively employed paraldehyd especially in psychical exaltation and delirium tremens. He gives from 3–6 g. He prescribes an emulsion composed of equal parts of paraldehyd and gum acacia. The gum is mixed with little water and the paraldehyd gradually added, alternating with water, so that a homogenous fluid is obtained. Berger's formula is 18 g each of paradehyd and gum acacia, 150 g water and 30 g. syrup. Every tablespoonful contains 1,5 g paraldehyd and usually two tablespoonsfull are given.

An older formula by Berger is: paraldehyd 2—4 g; mixt. gummos. 60 g; syr. cort. aur. 30 g. This is to be taken at one dose.

An American Exhibition of American Products and Resources is definitely arranged to take place in London in 1886. We have no doubt the instrumental and pharmacological departments will do their part.

The Line of Demarcation Between Plants and Animals.—It is interesting to observe with what persistency and industry the scientific man besieges nature in order to constrain her to reveal her secrets, whilst the uninitiated may suppose that the facts learned are not worth labor expended; yet those who are in a position to estimate the amount of patient work involved will not fail to applaud the work. It is with pleasure that we quote from the New York Medical Journal a part of Hoppe-Seyler's lecture at the opening of the new Institute for Physiological Chemistry at Strassburg.

Animals and plants, says Hoppe-Seyler, are as regards these substances in general, not different, though certain substances, as albuminous matter, fats, and inosit, appear in both; others, as cellulose, starch, cane-sugar, tannic acid, and malic acid, only in plants; others, again, as glycogen, less in plants than in animals; finally, certain substances, as gelatine, urea. and creatin, are found only in animals.

The line of demarcation which it was once thought could be drawn in regard to chemical structure and life-processes between plants and animals has been, in consequence of recent investigatious more and more obliterated.

The discovery of inosit, glycogen, and allantoin in plants; the establishment of closer relations between the caffeine and theobromine of plants and the xanthin and guanin of animals, especially the presence, without exception, of globulin substance, lecithin, cholesterin, nuclein, and potassium in all cells formed under normal or pathological conditions so far as yet investigated, whether in man or in the highest or lowest animals and plants—all these considerations must bring us to the conviction that definite fundamental chemical formations and changes are common to them all, especially their growth through formation of their own substance and their propagation without limit under conditions peculiar to them, must be formed in the presence of those chemical constituents; that also in the further processes of change, often appearing so different in the different classes, orders, and families of animals and plants, many processes can take place according to a conformable fundamental type; and that finally in the life-processes of man these parallels are again found, whose simplest manifestation we, perhaps, follow with the least difficulty in the lowest organisms.

We are thus brought to a definite unity in the original chemical structure and processes of living existence, a point which the microscopico-anatomical investigation of the morphological development has already reached. The chemical characters are, however, much more within our ken than the microscopic, since the latter take cognizance of the simplest forms of existence, as plastic, variable, or irregularly formed little masses.

When the chemical component of the cells or the protoplasm, or any formed organ of animals or plants, is spoken of, it is, of course to be observed that we have yet no right to speak of the constituents of living cells, but only of the products of their chemical decomposition. A series of observations of different kinds points in the direction of the conclusion that the change which simple protoplasm, as well as complicated organs, undergoes on the entrance into the death state, arises from the chemical addition of water. If the water essential for all life-processes be removed, life is indeed suspended, but death does not, in consequence of this alone, follow. Plants, insects, amphibians,(e.g., tritons), and frogs can for a long period remain hard frozen; their life is thereby fully suspended; after being thawed slowly out, the organs take on again all their life-functions. The noses, ears, hands, and feet of men act similarly

when frozen by a degree of cold not too intense. But such frozen organs die at once if thawed out too quickly, inasmuch as the melting ice-crystals injure the cells in juxtaposition to them. Carefully dried seeds of plants—e. g., peas—can be kept heated for hours at 100°C. without their vitality disappearing. They sprout, after cooling, when placed in water or moist earth just as quickly as undried and unheated peas, and develop to perfectly healthy plants. If the seeds are not carefully and fully dried before the heating, they perish under 60°C. If now, from these and many other experiences, it is to be concluded that the death of protoplasm arises from assumption of water, then must it be assumed that the forms of living protoplasm conduct themselves in respect to the substances found in the dead forms of the same as anhydrides do to their hydrides or decomposition products, unless some further insight into this matter is forthcoming.

Colpohysterectomy.—The removal of the uterus per vaginam for malignant disease is extensively practiced in Europe, and the operation commends itself by being a relatively safe one, unattended by the terrible shock and other dangers attending uterine extirpation by laparotomy. With a careful selection of cases, says Prof. Czerny of Heidelberg, there is no reason why the vaginal extirpation of the womb should be a more serious undertaking than the removal of a breast or an ovariotomy. The reports of the operation are all very favorable and Czerny seems to have stated no more than the truth. A. M. Solowjeff reported ten cases of the operation for malignant growth to the surgical society of Moscow, that he performed in the last two years; of this number seven are living; one case is absolutely well, two others at the date of the report, 18 and 20 months after operation, were still without signs of a return; two cases have no return of cancer in the cicatrix, but have other, visceral degeneration; in one case a local return in the scar has ensued; of the remaining no definite data could be learned. Of the three patients that are dead, one could not be completely operated, the process having already extended to the ligamenta lata; the second patient died from a recidiv in the ligamenta lata, the third died of sepsis following the operation. It will be seen that but one case succumbed to the operation and that one not to shock or hemorrhage, but to infectious causes.

Malarial Orchitis.—A case of severe orchitis with epidiymitis and slight effusion into to the tunica vaginalis is reported by Zacco (Gaz. degli ospitali) as having occured in a malarial patient; the usual measures availed nothing and only quinine made an impression and effected a cure. There was no other cause than malaria assignable.

General Paralysis with Spinal Affection and Blindness.—Westphal (Centralblatt f. Nervenheilkunde, etc.) reports before the Berliner Gesellshaft f. Psychiatrie., an interesting case of general paralysis with certain peculiar symptoms. The patient was a teacher of gymnastics; no peculiar hereditary tendency, but of an excitable temperament. He was infected with syphilis in 1874. In 1877 he became melancholic, the subject of unpleasant sensations in the breast with pain in urination. No recognized outward manifestations of syphilis and nothing remarkable relative to the nervous system, simply an absence of the knee phenomenon. In 1879 he experienced a sense of constriction around the chest and a disturbance in vision. In 1880 the optic media were found clearer than normal. Gradually the acuteness of vision diminished and the field of vision was contracted. In 1882 complete blindness occurred. At no time was there any disturbance of sensation or pain or formication. In 1883 he was received into the hospital owing to paralytic insanity. There existed the usual exalted notions. There was an inequality of pupils and insensibility of the same to light, complete blindness associated with atrophy of the optic nerve. The speech was disturbed. The patient could stand with his eyes closed and his feet spread out; when his feet were put

together and his eyes open he could still stand erect, but when he closed his eyes, although he was blind, he became uncertain. Death occurred from congestion of the lungs. The autopsy revealed pathological changes in the posterior horns of practically the whole length of the cord, but the changes did not extend to the periphery. It is said that no syphilitic changes were observed in the other organs. It would be very interesting to know as nearly as possible to what extent the various antisyphilitic remedies have been used in the cases of syphilis followed with indications of tabes dorsalis. The author does not, however, in this case refer the tabes dorsalis to the pre-existing syphilis.

Deep Anaesthesia.—We are perfectly satisfied that the mistake of producing only partial anæsthesia is frequently a cause of much loss of time and involves a large amount of risk, and we quote with pleasure the remarks of W. A. Meredith of the Samaritan Free Hospital, England, in an address before the British Medical Association. "There is a fact which appears to me to be often insufficiently appreciated—namely, that in abdominal operations entailing much interference with deeply seated parts, the amount of shock produced is constantly in inverse ratio to the profoundness of anæsthesia. I have frequently observed that a patient, who is incompletely anæsthetised, at once shows signs of heart failure when extensive adhesions are being dealt with in the immediate neighborhood of the large sympathetic plexuses; and this condition, if taken as an indication for withdrawal of the anæsthetic, may readily deepen to a dangerous extent, leading sometimes to fatal collapse. On the other hand, if complete anæsthesia be carefully and uniformly maintained throughout, recovery from even the most severe operations, without any evidence of shock, is the rule, and convalescence is proportionately facilitated.

Therapeutic Statistics.—Pharmacology and Therapeutics is the subject of a new section in the British Medical Aasociation and Dr. T. J. Maclagan in a very able address opened the section. He claims that the majority of the statistics relative to observation of the results of treatment is of little or no practical value. He instances statistics to show that fevers and acute inflammations were best treated by bleeding, but later experience showed its practice in a great number of cases injurious. More recently, he says, masses of statistics have been advanced to demonstrate the power of alkalies to control the course of acute rheumatism; and, up to within the last few years, we all accepted these statistics. Like a bomb-shell in our midst came the bold assertion of Sir William Gull and Dr. Sutton, that alkalies are of no practical use in this disease, and that mint-water does as much good. After we had recovered from our first feeling of surprise, we felt that Sir William Gull and Dr. Sutton were quite right, that we had been living in a sort of fool's paradise on this question, that we had attached undue importance to statistical statements, and, accepting them without a sufficient examination of their value, had been led astray by them.

I do not mean to say that statistics are altogether valueless, and should have no place in medicine; but I do say that as a means of therapeutic research they are not only valueless, but have been in the past positively misleading.

His opinion is still further illustrated further on in the address, and as it relates to the all important subject of typhoid fever and Brand's observations, we quote him at length:

The treatment of fever by cold is an old practice, which has been revived of late years. Its resuscitation is mainly due to Brand, a German army-surgeon, who has published some very remarkable statistics to show that, by this treatment, the duration of, and mortality from, typhoid fever can be greatly lessened; and that, if begun sufficiently early, by the third day, the course of the disease may be arrested.

Such a very remarkable statement cannot be accepted without a complete examination

of the facts on which it is founded; and, at the very commencement, we are met by an objection which shakes all our confidence in the accuracy of Brand's statements, and in his reliability as an observer: for, when he tells us that the best results are got in cases in which the treatment is commenced by the third day, the questions naturally arise in our minds, how does Brand come to see typhoid fever at so early a period of the illness? and, having seen it, how does he diagnose it? I am quite sure that, in this country, not one case in ten thousand is ever seen at so early a period. I am equally sure that no physician would venture to make the diagnosis of typhoid fever at that early stage of a febrile attack. So slight are the early symptoms, and so insidious the onset of the malady, that the patient rarely applies for advice before the sixth or seventh day; and the features characteristic of the disease are so tardily developed that a diagnosis can rarely be made before the end of the first week. These are established facts in the history of typhoid fever; and when we find Brand coming forward with statistics in which these facts are ignored, we are bound to receive his statements with all reserve.

Let me tell you of two cases which came under my notice last week. A gentleman had been ailing for a couple of days; he had headache, malaise, some aching in the limbs, and loss of appetite; his pulse was 100, his temperature 102. 2°; there was no local inflammatory mischief, no apparent cause for the rise of temperature. I sent him to bed, gave him a light diet, and half an ounce of liquor ammoniæ acetatis every two hours. On the following day (the fourth of his illness) ths temperature was 98. 6°. On the next day it was normal, and he was well. Brand would have told him that he had typhoid fever, would have put him in a cold bath, and included the case in his statistics.

A few days ago, I saw a boy, aged 15, on the third day of an illness which commenced with headache and a feeling of cold· His pulse was 104, and his temperature 102. 3°. There were no local symptoms. He was put to bed, and given a teaspoonful of Minderers spirit every two hours. The next day his temperature was 100°, and on the follow-day normal. Brand would have treated the case heroically by the cold bath, would have got him well as quickly as I did, would have given the credit to the cold bath, and included the case in his statistics.

These are cases of which we all see dozens every year. I instance these two only because they occurred last week. In civil life, and especially among the poorer classes, the majority of such cases recover without ever being seen by a medical man. In military pratice, they are all seen and treated. Brand, as a military surgeon, has seen a great many of them, and unfortunately, has included them in his statistics as cases of typhoid. What reliance can be placed on the statements of a man who makes such a mistake as that? If any English military surgeon had come forward with such statements and such statistics, they would not have received a hundredth part of the notice which has been accorded to Brand's, and would long ago have been set aside by the profession in this country as worthless; they are none the less worthless because they are of German origin.

Effect of Sewage on River-Water.—An examination has been made of the water of the river Oder above Breslau, in its course through the city, and for fourteen kilometres, or about ten miles, below the town, to determine the effect of sewage upon its purity. From the point where the water-supply of Breslau is pumped up to a little above the town, the water undergoes a slight but appreciable deterioration, but after filtration is quite suitable for domestic uses. In passing through the city a continuous change for the worse takes place, which is manifested by the increase of oxidizable matter and of chlorine, and by a hundred-fold augmentation of ammonia and albuminoid ammonia. Microscopic examination disclosed the abundant presence of organisms of putrefaction. Farther down was observed a gradual process of self-purification by contact with oxygen, along

with the co-operation of vegetable and animal life in the stream. At fourteen kilometres below the city, the influence of sewage could not be detected, either by the chemical or the microscopic examination; but the water was of the same composition as at the supply-station above.

An International Laryngological and Rhinological Journal.—Dr. Felix Semon, of London, has issued the first number of a new journal the title of which is "Internationales Centralblatt f. Laryngologie, Rhinologie und Verwandte Wissenschaften." It is to be in the German language and published in Berlin. A number of able workers are associated with Felix Semon. The intention is to confine the contents to abstracts of papers and reviews of books on laryngology and rhinology together with editorial articles according to the English and American custom.

How the "Powers that be" Cramp the Efforts of Science.—We smile compassionately when we refer to the "heathen" worshiping the cow or doing reverence to the dog; but how should we regard the narrow-minded bigotry of men in high places of trust, who evoke from earnest minds complaints such as the following:

By experiments on the lower animals much has been done in the past, and much is likely to be done in the future; but not, I fear, by us, at least not at present, for from this wide and promising field of research we are debarred by the action of our legislature; but, thank God, gentlemen, science can not be thwarted or have its advance obstructed by shortsighted and hysterical legislation. Science belongs to no country and no nationality. Though Parliament may cut us off from an important means of research, and prevent the countrymen of Harvey, of Bell, and of Jenner from carrying on researches, which in the past have led to such important results, it cannot prevent us from reaping the benefit of the observations of our brethren in other countries; for, amid all the outcry that is being made in this couutry against this method of research, it is in other countries being steadily carried on, and with results which will one day silence its opponents, and shame our legislators into retracing their hasty steps, and according to us that liberty which we never abused.

Further on in the same address the same author before the British Medical Association, speaking of the advantage to be obtained from certain observations says:

But it is obviously an inquiry which can be carried on only by experiments on the lower animals; and here our Government—that power which is created by and for the people, and which exists only for the people's benefit, steps in and says "No, you shall not make such experiments; let the cattle-plague carry off our cattle by thousands, let the human race be decimated by pestilence, let our children die in scores of scarlet fever, diphtheria, and measles, but you shall not, even to save them, touch our cats or dogs; these must remain sacred." And so, for the present, we must abandon this hopeful field of inquiry.

The Treatment of Cases of Epithelioma of the Anus and Lower Part of the Rectum.—On this subject James E. Adams writes as follows in the British Medical Journal:

A few years ago the removal of the lower part of the rectum was somewhat enthusiastically taken up by some surgeons, and many seemed to think that it was worthy of ranking as an operation of the first magnitude. It appeared to me, after seeing the results of a few cases in the hands of my colleagues, that, as a means of affording any substantial relief, its scope would be very limited. Seeing the very short distance that the operator can go in the upward direction beyond the disease, and consequently the almost inevitably speedy recurrence, together with the uncontrollable contraction that must follow anything like a complete removal of the entire circumference of the gut, or anus, I suggested some time ago that it would be much better, in all cases but the very slightest, to perform a lumbar colotomy first, and then, when the patient has re-

covered from this, to excise the malignant growth as freely as possible. If the patient get over this, he has every chance of living a year or two in tolerable ease. On the first occasion that presented itself, I put this plan into practice, with the happiest result. The patient was under observation for two years after the second operation, and was in perfect ease and comfort, and had become quite fat and strong, though, at the time of the operation, she was much emaciated. The most striking point, to my mind, is that, though the disease had reappeared within six months after the removal, she was quite unconscious of its existence. My attention has been forcibly directed to this subject again by witnessing the daily tortures of a friend who has undergone two partial and wholly useless operations, and has now to pass his motions over a rugged raw surface with a deep gash in it, caused by one of the operations. The presence of the disease in the lymphatics of the groin now renders any attempt at removal out of the question; but the colotomy might still be done. I contend that, by adopting the course I indicated, any patient might pass through all the phases of this horrible and fatal malady with scarcely any pain at all. The advantages of the abscence of the fæces from the wound resulting from the excision, or from the recurrent growth, are too obvious to require mention here.

A Case of Floating Liver.—Dr. J. B. Arini describes an interesting case of floating liver in a recent number of the Anales del Cerculo Medico Argentino, quoted by the Medical and Surgical Reporter. The patient was a young married lady, in whom the abdominal muscles were weak and flaccid after childbearing. Wishing to put on a new dress which was found to be too tight, she, with the aid of another person, forcibly squeezed herself into it by lacing her stays extremely tight. Thus compressed, she started for church, but, before arriving there, was suddenly seized with an internal pain and sensation of tearing, which caused her to faint. Symptoms of peritonitis followed, obliging her to remain in bed for some time. On the subsidence of the peritonitis a large swelling was noticed in the middle and right side of the abdomen. This tumor, which was movable, caused her great pain on walking, and she could only sleep on the right side. Dr. Arini first saw her eighteen months after the accident; he then verified the presence of a tumor. presenting the character of the liver. The anterior surface was smooth and convex, and not painful to gentle pressure; its lower border was sharp with a notch, its upper border thick and smooth; the tumor was movable, and could be raised upwards and to the right under the false ribs; the normal dull zone in the right hypochondriac had given place to a clear tympanite sound. The periodical changes observed in the tumor coinciding with digestion, its movability, the subjective phenomena of weight and traction, and the physical signs, added to the history of sudden onset, recent confinement, and pendulous abdomen, all made the diagnosis clear. The treatment consisted in the employment of a species of support or corset, with a convave metal plate well padded, on which the thin border of the liver rested; the organ by this means was held up more or less in its normal position. The patient found great relief from this support, and was able to walk and to lie on the left side without difficulty.

Genu Valgum is said by Prof. Luecke to be on the increase. He refers it to the habit of wearing straps fastened to the socks and running up the outside of the thigh to the corset or under-wear. He claims that the persistent influence, though small, of the straps is sufficient to determine a case of genu valgum where the child, though not rachitic, is not robust. He claims that garters above the knee are better.

Dr. Adler Smith in an address at the conference on school hygiene at the International Health Exhibition stated that a good disinfecting oven was a necessary adjunct of every public school, expressing his conviction of the inadequacy of home disinfection.

Experiments are being made in Paris to determine the practicability of burning the discharges of cholera patients.

Pleuro-Pneumonia, according to Dr. Salmon's report, is making great ravages among Jersey cattle in Illinois.

Of the insane cases occurring in England since 1876, among the males 20.2 per cent. and 7.1 per cent. among the females are referred to the excessive use of alcohol.

Two cases of insanity are recorded by Voisin, of the Salpetriere, originating from the inhalation of the bisulphide of carbon. One recovered in three months, the other in three months and a half. Cases similar to these were reported a short time ago from the Pacific slope.

M. Duval claims the existence of a rudimentary placenta in the ova of birds.

CONTRIBUTIONS.

MEDICAL ANTIQUITIES.

BY WALTER COLES, M. D., ST. LOUIS.

No true lover of our profession can trace the history and progress of medical science without being intensely interested. When we view ancient dogmas in the light of the physiological and pathological knowledge of to-day, we may indeed be amused at some of the primitive tenets of the earlier physicians, but at the same time we find much to wonder at and to admire. Especially must the student of medical history be struck with the really very small degree of progress which has been made in the general diffusion of correct medical knowledge amongst the laity. In ancient times, when men were begotten, born and reared under superstitions of all kinds, it is not strange, in the then pervading ignorance of physical and physiological laws, that the people should surround disease and the art of healing with a halo of the supernatural. Considering, however, the general progress of information in the world during the past two thousand years, it would seem that, for some reason, sensible so-called "*educated*" people have sadly lagged behind in medical knowledge. Indeed, the laity, even those whose general acquirements are good, have made little or no practical progress. They are, as a rule, fully two thousand years behind in pathology; they are about as open to superstitions as ever, or if not superstitious, they possess just the requisite amount of medical learning to prove a most "*dangerous thing*," and which is industriously worked on and utilized by *quacks* and *humbugs*. This will continue to be the case and the various "*isms*" will continue to flourish until physiology comes to be considered a necessary part, not only of the education for the so-called "learned professions," but also as a standard study in all our higher schools and colleges.

In his admirable address delivered on the occasion of the opening of the new building of the Boston Library Association, Dr. Oliver Wendell Holmes remarks, in speaking of the interest attached to old authors, that "men were not all cowards before Agamemnon, or all fools before the days of Virchow and Billroth." The amount of truth in these words can only be fully appreciated after a careful perusal and examination of the works of the early physicians. Take, for instance, the writings of Hippocrates and making allowances for his lack of anatomical and physiological acquirements, it is astonishing with what accuracy he has observed and noted the clinical features of disease. His description of the great Athenian plague, in which he laid the foundation of his reputation as a physician, is as vivid and exact as anything to be found in the journals of to-day touching a similar visitation in the provinces of Astrakhan and Ienotaevsk. Even the non-professional pen of Thucydides has painted the horrors of the "*plague*" with about as much precision as any account we have had from modern sources.

In his charmingly simple and candid style, Herodotus makes many observations of interest to the student of medicine, and not a few of the notions and customs noted in his travels amongst the "*barbarians*" are kept up to the present day. For instance, he tells us that the Babylonians were in the habit, when sick, of stationing themselves in the market-place so that they might speak with passers-by concerning their ailments in order to "discover whether they have themselves been afflicted with the same disease, or have seen others so afflicted; that the passers-by confer with him and advise him to have recourse to the same treatment as that by which they escaped a similar disease, or as they have

known cure others." This fashion, as we all know to our frequent vexation, has not passed entirely out of vogue with the fall of ancient Babylon. In the modern revival of specialties we are, according to the same authors, but copying after the Egyptians, who were in their day, like the present, overrun with doctors. "The art of medicine" says Herodotus, is thus divided among them; each physician applies himself to one disease only, and not more. All places abound in physicians; some physicians are for the eyes, others for the head, others for the teeth, others for parts about the belly, and others for internal disorders." But, perhaps one of the most remarkable things recorded by Herodotus is of peculiar interest in connection with the recent discussion concerning "Harvey and his Discovery," since it tends to show that at least a crude idea of the circulation of the blood is of very ancient date. In speaking of the habits of a certain tribe of Lybia this author says: "When their children are four years old, they burn the veins on the crown of their heads with uncleaned sheep's wool and some of them do it on the veins in the temples, to the end that humors flowing down from the head may not injure them as long as they live; and for this reason they say they are so very healthy, for the Lybians are in truth the most healthy of all men with whom we are acquainted." Some times convulsions attended this painful operation; when these occurred the child was relieved by being sprinkled with the urine of the he-goat; whether or not this fluid was kept "on draught" for the occasion, history does not inform us.

MEDICAL EXPERT TESTIMONY.

BY THOMAS W. HURLEY, M. D., BENTONVILLE, ARK.

Read before the State Medical Society of Arkansas, at the Ninth Annual Session, Little Rock, May, 1884.

As an humble member of a great profession, known throughout the world for its integrity and learning, its disinterested benevolence and philanthropy, and feeling the assurance that our best men and highest authorities are willing to encourage the humblest in the investigation of any truth or interest pertaining to the profession, I feel that I may submit for the consideration of this learned body a few thoughts on the subject of Medical Expert Testimony without being accused of inconsiderate venturesomeness.

The topics embraced in the science of medical jurisprudence have been constantly acquiring importance in proportion as the wants of society have increased, its resources multiplied, and the refinements of civilization become extended and enlarged.

The demands of the public for physicians to aid in the administration of its laws are constantly on the increase. The bench and the bar have yielded more or less to this progressive spirit, and in spite of some attempts to maintain the old land-marks, they have, on the whole, liberally responded to the requirements of science. There is a better conception of the subject; medical journals, law journals and medical society transactions abound in free and frequent discussions of the subject, and society is more willing to accept the results or conclusions of science to-day than at any other period of the world's history.

These results may be attributed partly, no doubt, to the more active spirit of inquiry that pervades every department of thought, but it is chiefly to the larger and more intelligent attention given to mental disorders and the philosophy of crime that we may attribute the growing demand for doctors to aid in the administration of the laws of the country.

Statesmen and lawyers, I believe, claim that government, in theory, at least, is a perfect science, and its profession is to observe all the laws which affect its well-being; but there are laws which government must learn from other sciences, and prominently among these is the science of medicine, or rather, all those sciences which, in this country, are commonly attributed to the medical profession.

The true relation between the government and the man of medical science, when the latter is called upon to aid in the administration of the law, is the subject to which the attention of this society is especially directed.

The position is taken that when physicians are summoned as medical experts, they are, to all intents and purposes, ministers of the law, and are not witnesses in the common acceptation of that word. What I understand to be the meaning of the term medical expert, is a physician or surgeon charged with the duty of making a report, or rendering a decision upon any case of legal medicine. Notwithstanding the fact, that from the earliest history of our law physicians have been used in its aid, little effort has been made to give them a position in the courts commensurate with their merit, or to define the position that the one sustains to the other. This, perhaps, is because they generally take no part in the making of laws themselves, and have not

sufficiently asserted their own importance before the legislatures. The unfairness with which the physician is now treated in the courts, and the suddenness with which he may be called from his office on the bedside of a patient, placed upon the witness-stand, and urged to answer questions of the most abstract character upon branches of his profession that he has, perhaps, not thought of for months, requiring him to answer them intelligently, and that very often to a jury of very ordinary understanding, is painful to the profession, and by no means creditable to the law.

In the larger proportion of cases the medical testimony, which is given in the shape of opinion, is rather an anomaly in evidence, so that courts have been sorely puzzled at times to get rid of it, not knowing whether to admit or reject it. Yet it is mostly relied on, and governs or determines the verdict of the jury. An ordinary witness relates only what comes within the cognizance of his own senses; the medical expert renders an opinion drawn from the facts related. It is perhaps, of little consequence who testifies to simple facts; that it only requires eyes to see, or ears to hear; but it is all very different with the delivery of opinions that are to shape the final decision. The question may be very pertinently asked, who is to decide these things The fact is that juries are not generally composed of the best informed men in the country. An intelligent, conscientious jury, when required to decide in a case which is to determine the weal or woe of a fellow being, would feel the delicate and responsible situation in which they are placed, and would, perhaps, realize their incompetency, but not so with the ordinary jury made up from the common walks of life. Simply to mention this fact is sufficient comment.

The present mode of employing medical experts is neither safe to society nor elevating to the profession. The known facility with which the testimony of some physicians can be turned to account, and the further fact that medical testimony may be colored by partisan-bias cannot be denied nor ignored. Nothing is more horrible to contemplate than a traffic in evidence either for gain or notoriety, yet it is done for both. Then, it is not enough that the standing of the expert is high as to professional attainments; or, if lacking some of these, that he is a man of integrity and morality; for professional attainments do not always imply integrity, nor does integrity always imply competency. "Integrity without knowledge is weak and useless, knowledge without integrity is dangerous and dreadful."

When liberty, life and the possession of property is at stake, and the issue can only be determined truly by competent medical expert testimony, how important it is that government provide some way of procuring safe and reliable men to decide these questions.

As the law now is, all legally licensed physicians are competent experts, and either party may select his own expert. Now, it is a well known fact that there are men, licensed physicians so-called, in this state, who never read a medical book of any description in their lives, and yet they may be summoned as experts, and important decisions rendered, or verdicts found in accordance with their testimony.

The importance of selecting proper persons as medical experts is very great, and there are many questions with reference to the subject that should at once engage the careful attention and best thoughts of jurists and physicians.

The profession is not responsible for the contempt and odium that interested parties, outsiders, have attempted to throw upon it. We are no more responsible for the acts or opinions of quacks and charlatans, than lawyers are for the tricks of pettifogging case-lawyers. It is safe to say, and I take this occasion to say it, that if the ends of justice are defeated, criminals go unwhipped of justice, innocent persons are incarcerated, sane persons sent to asylums through malice or for the purpose of gain, the fault cannot be laid at the door of the medical profession. With all the guards we can throw around our profession, we cannot keep unworthy men from coming into it. If the law will license men who are not physicians and then permit them to be used as medical experts, if medical experts are permitted to appear before juries as medical attorneys, paid to secure a verdict, then we can but record our protest, sorrow and righteous indignation.

TRANSLATIONS.

LUNG-SURGERY.

(Deahna; Schmidt's Jahrb.)

It was Prof. Mosler who of late first took up the problem of operative interference in certain lung diseases and who treated this subject exhaustively in a lecture before the "Second Congress of Medicine," held at Wiesbaden in April, 1883, and subsequently published a volume on the same matter.

Lung-surgery is naturally limited and bold measures are reprehensible. The resection of the lung cannot be carried out in man to any advantage and is to be condemned absolutely in phthisis.

As regards the parenchymatous injections into the lung-tissue, the very encouraging experimental results in animals have not as yet proven satisfactory in medical practice. Mosler as early as 1872 made injections of solutions of carbolic acid and salicylic acid of various strength through the thoracic wall into the diseased parenchyma. As a rule, the injections were borne with no distress; the apices of the lungs were not so injected, for fear of hemorrhage. However, in no cases, excepting echinococcus of the lung did the desired result, *i. e.*, alteration of the character of the pathological process, cicatricial shrinkage, etc., ensue. In putrid bronchitis and in a case of abscess of the lung the repeated parenchymatous injections of a strong solution of salicylic acid temporarily improved the odor of the sputa, but no permament relief was afforded. In acute gangrene of the lung no benefit whatsoever resulted.

Likewise the injection of solutions into cavities was attended by no good results. Therefore, Mosler took up the older plan of opening and draining such cavities; and, indeed, he was much encouraged by the following case:

A patient had a bronchiectatic cavity in the left upper lobe. Prof. Hueter made the incision through the integuments and opened the anterior wall of the cavity; the contents were drained off and a canula was inserted. This was gradually displaced by the developing granulations. The opening closed entirely. Tympanism and rales disappeared, and the thorax over the former cavity became gradually retracted. The point of incision was painless, even on percussion. The patient had gained in weight. About eight months thereafter respiratory trouble again became manifest. The right apex became the seat of dullness on percussion and of rales. The patient died one year and two months after the original operation. The autopsy showed general tuberculosis and amyloid degeneration of the viscera.

It is of great importance that it be fully determined whether the disease is still circumscribed or whether large and extensive invasions have already taken place, for, it is manifest, that all cavities that result from tuberculosis, or are complicated thereby, are a *noli me tangere* for operative treatment, at any rate until a remedy is found that annihilates the bacillus tuberculosis.

Echinococcus of the lung appears to be a promising field for operative treatment. Foreign bodies that cannot be discharged by the bronchi and that cause severe trouble by their remaining in situ, might also be traced and found by thermo-cautery. Mosler quotes a case in which a swallowed tooth brought about localized pain on the right side and gangrene. The tooth was expectorated a few days before death, which ensued twenty-three days after the accident. An analogous case is reported by Dr. J. K. Fowler (Brit. Med. Jour., May 31, 1884), and the operation was successful in a measure. Dr. Fowler was consulted by a gentleman, 47 years of age, who had had a tooth extracted. The tooth could not be found after the extraction and the patient, on rising from the chair, was seized with alarming dyspnœa and complained of a severe pain in the region of the right nipple. In the weeks following, the patient had severe cough. Two months thereafter examination developed catarrhal affection of the apex of the right lung and a cavity of considerable size near the base of the right lung. It was determined to puncture this cavity, and an operation to that effect was made between the eighth and ninth rib. The surgeon operating, Dr. Marshall, thought he had struck the tooth. No cavity, however, was opened, but a large bronchus. Nevertheless this gave relief; the cavity discharged and grew smaller and the general condition improved much. After about five months the drainage tube was removed and the opening healed up. A year after operation the right apex was healthy, and only a small cavity could be determined. The patient was doing well. No bacilli tuberculosis were present in the sputa.

In acute abscess Mosler also advises cauterization of the gangrenous tissue. Also, in chronic gangrene, especially those forms that are due to sacculations of the bronchi and are attended by profuse expectoration of large quantities of putrid material. On account of the hopelessness of methods of medication Mosler determined to operate in the following case:

A boy, 14 years of age, was received at the hospital on account of septic fever and profuse expectoration of gangrenous lung tissue. He had had bronchiectasia for many years. A cavity was located in the left upper lobe of the lung and an incision was made in the third intercostal space.

An inch of the seventh rib was then excised and the thickened pleura perforated by a trocar and thereupon by the thermocautor. An excessively offensive fluid escaped; digital examination showed the presence of a large cav-

ity with numerous recesses in a soft tissue; the openings of several bronchi could be felt. All this gangrenous tissue was thoroughly cauterized and the cavity was washed out with salicylic acid. Thereupon, a long, curved dressing forceps was thrust downward and backward. At the point where it reached the thoracic wall a piece of the eighth and ninth rib was removed. This opening discharged about 300 c. c. of stinking fluid containing numerous pieces of necrotic lung. The walls of this cavity were treated with the thermocautor until a complete eschara was obtained. Drainage tubes were carried upward to the third intercostal space, where the first incision had been made. From October 19 to December 24 the drainage was perfect and the patient was doing well. On the latter date instead of salicylic acid in solution, a mixture of thymol and boric acid was employed. This immediately caused severe laryngitis, tracheitis and bronchitis to which the patient succumbed on December 30.

The autopsy showed that the operation was indicated and that it was a technical success.

Mosler recommends in lung-surgery the incision of the integument and muscles, perforation by means of a dressing forceps, cauterization with the thermocautor and irrigation with solution of salicylic acid.

Dr. Eugene Fraenkel (Deutsche Med. Wochenschr, viii) made the following experiments on the influence of injections into the healthy lung. He experimented on rabbits, and employed 2½—5 per cent solutions of acetate of alumina, 1—2—2½—4—5 per cent solutions of carbolic acid, 4 per cent aqueous solution of boric acid and 5 per cent oily solution of iodoform. With these solutions injections of 1 c.c. were made several times daily or at intervals of several days.

Not the slightest reaction was noticed. At the time of injection some of the animals coughed slightly; all the animals did well. The anatomical changes in the lungs. due to the injections, Fraenkel divides into two classes, primary and secondary. Hemorrhage into the lung tissue and into the pleural sack are such primary lesions; they are inconsiderable and disappear entirely in due course of time, or may cause stringy pseudo-ligamentous adhesions.

The use of the stronger carbolic acid is followed by small, disseminated miliary indurations. These are nothing more than reactive proliferative formations that tend to resorption and cicatrization. These experimental results appear to Fraenkel to justify the therapeutic application of such or similar measures in human pathology. Thus, Fraenkel thinks, that chronic inflammatory affections of the apices are amenable to such treatment; the injections should be made into the diseased and also into the surrounding normal tissue. The former for the purpose of altering the character and tendency of the chronic inflammation, the latter to increase the resistance of the normal tissue, to build up a cicatricial dam, as it were, against progressive invasion.

However the experience of Mosler has, as we have seen, not corroborated these deductions. No success attended the practice of injecting chronic indurations of the lung. And Dr. William Pepper also holds that extensive induration or solidification cannot be benefited; he believes that only circumscribed processes of this character are amenable. Pepper made lung-injections in five cases, and only in one was an improvement apparent. A lady, 27 years of age, whose family record showed consumption, and who had had syphilis, showed induration and catarrh of the left apex. During a period of 18 months, forty-five injections were administered. The needle of the syringe was passed into the first and second intercostal space. The first ten injections were two per cent carbolic acid, the subsequent ones were made with Lugol's solution. The case appeared bad, but the physical symptoms of the lung improved from the first. The thorax over the left apex gradually retracted and a feeble respiratory murmur was heard with prolonged expiration; there were no rales. The patient picked up, cough and expectoration ceased. She did well for two years following the close of treatment, then renewed trouble became manifest at the old seat of lesion. The injections caused no disagreeable or violent symptoms whatever.

(TO BE CONTINUED.)

SOCIETY PROCEEDINGS.

"*VEREIN DEUTSCHER AERZTE.*"

REPORTED FOR THE REVIEW.

St. Louis, August 8, 1884.

The fifty-first meeting of the "Verein Deutscher Aerzte" was held this day; Dr. Baumgarten in the chair.

Being a mid-summer meeting, no paper was presented or read. No specimens were presented, nor patients brought before the society.

On the call for cases from practice, Dr. Richter reported the following:

I have a patient, a lady 25 years of age, well nourished, never ill, of good family history.

Three years ago severe pain developed in the right thigh. She was then at Leipzig and was treated by Prof. Erb for months with no improvement. She came to the United States about a year ago and was at our Female Hospital for a time. On making a physical examination of her limb, I found the thigh flexed and adducted, and a lordosis of the lumbar portion of the vertebral column. No emaciation, no disturbance of sensibility and localization, no inflammatory symptoms. The hip-joint is mobile, however, with considerable restriction in all directions. The knee-joint is mobile. She walks as if she had a dislocation.

But there is no history of traumatic origin, in fact no history of any acute trouble at any time. I consider the impairment of the mobility of the joint due to a rheumatic process; and that we have rheumatic thickening and callosity in and about the capsular ligaments of the joint.

I have ordered her salicylates and iodides.

Dr. Alt.—About a month ago I reported a case of one-sided mydriasis. It was the right eye that was so affected and the use of iodide of potassium relieved the patient. Since then I had two further cases of one-sided mydriasis with paralysis of accommodation. In these two cases syphilis was existing and iodide of potassium gave a rapid, good result. In my former case syphilis could not be ascertained, but probably was the cause. These cases are rare and in my opinion of specific origin. A purely rheumatic origin is also claimed, but I have no faith in such causation. The mydriasis following diphtheria affects both eyes as a rule.

Dr. Baumgarten.—Several weeks ago I saw a boy, 15 years of age, in consultation, who had been ill with fever for a long period. He was very anemic, showed anasarca of both legs up to the pelvis and a puffy face. There was little, if any, ascites; the abdominal walls were edematous. The belly was much distended and uniformly so. Percussion revealed normal conditions as to the lungs; slight enlargement of the region of dullness over the heart; however, an enormous increase of the area of dullness of the liver. The right hypochondriac region was much distended and the dullness ran far over into the left side, in fact no distinct and separate splenic dullness could be made out. The dullness was continuous and extended fully an inch below the umbilicus. The tumefaction was of smooth surface and hard, smooth margin. The urine was pale yellow, clear; a little more than the normal quantity was voided; the specific gravity was 1008; there was a trace of albumen, but no casts.

There was then no fever, pulse was 100, slight dyspnoea. The process was of about two months duration and I believe it is an amyloid liver, for the following reasons: 1. That such considerable enlargement is found, besides in amyloid liver, only in malignant growths. There was no cachexia of a carcinomatous character however: 2. The surface was smooth as in amyloid degeneration. 3. In all probability the spleen was also involved; also the kidneys, although I could not find any casts.

Dr. Richter.—You do not think that the liver was pushed forward and downward by a growth back of and below the liver?

Dr. Baumgarten.—I think not. The dullness was continuous and extended so to both sides.

Dr. J. H. Hermann.—Was there any pain?

Dr. Baumgarten.—Yes, but not acute as in most malignant troubles or in suppurations.

Dr. Luedeking.—The case that Dr. Baumgarten reports bears great resemblance to one I reported here some months ago and of which I demonstrated some specimens.

The patient, a boy, fourteen years of age, of excellent family and personal history, presented himself on account of an enormous abdominal swelling that had developed in about three and one half weeks. No prodromata. The abdominal walls were distended enormously; sub-cellular tissue torn; there could be detected a slight degree of ascites and a colossal enlargement of the liver. Percussion revealed dullness in the right mamillary line to the upper border of the third rib, downward to the umbilicus, and far over into the left hypochondriac region. Orthopnœa; no albumen in the spare urine. Death ensued one and one-half weeks thereafter. The post-mortem examination revealed a liver weighing seven pounds; no marked increase of volume or alteration of appearance of the presenting portions of the liver. However, the convexity of the right lobe and its posterior margin were occupied by a soft, fluctuating tumor-mass, of a medullary and soft character, with numerous large extravasations of blood.

This mass, so localized, determined the increase in volume and weight. No pathological changes in the lungs, heart or spleen. The kidneys, however, showed each at least

half a dozen white medullary infiltrations of the varying size of a hazelnut to a pigeon's egg. In the left kidney the infiltration occupied the whole medulla of the kidney, and as a consequence of the obliteration of the excretory passages there were some cysts in the corticalis, retention cysts. Also in several of the distended ducts, casts were found produced by the deposit of concretions of urates especially.

The microscopic examination revealed a small, round-celled structure of the new formation, positively unattended by any degenerative or other changes, the hemorrhage into the main tumor excepted; therefore I pronounced the formation as small, round-celled sarcoma. The presenting surface of the liver was perfectly smooth.

Dr. Baumgarten.—I have lost sight of my case and can therefore give no further report of developments.

Dr. Heyer.—You did not harpoon the swelling?

Dr. Baumgarten.—No, sir. Aside from the dubious value of this proceeding it would not have been permitted.

Thereupon adjournment.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

Thursday evening, June 26th, 1884. The President, Dr. Tyson, in the chair.

Specimens from a Case of Resection of the Humerus. Presented by Dr, Nancrede.

Mary D.—æt. 17 years, from whom these specimens were removed, received a severe compound comminuted fracture of the left humerus by having her arm wound around the main shaft of a spinning-mill's machinery on January 2, 1884. She also at the same time received several severe scalp wounds. Irrigation with bichloride of mercury solution resulted in the salvation of the arm, although in the effort the girl nearly lost her life. At the end of six weeks, no union having taken place, the ends of the fragments being necrotic, I cut down, removed the small fragments here presented, and after sawing off the ends of the main fragments, drilled and fastened them together with two stout silver wires. The whole extremity was then put up in a fixed apparatus—plaster—which was not disturbed until irritation of the skin from pressure, etc., required it. Now, at the expiration of about five months, the fragments became firmly consolidated, with the line of the bone apparently perfect.

Microscopic Slides from a Case of Spindle-Celled Sarcoma of the Breast. By Dr. G. De Schweinitz.

I desire to exhibit a few sections this evening cut from a tumor of the breast removed by Dr. John Ashhurst in the University Hospital. The history of the case in brief is as follows: Annie S.—married, aged 35, the mother of four children. Family history good. Her own health good until two years ago, when she began to suffer from malaria. The tumor of the breast first began to be manifest one year ago and grew gradually without much pain until the late operation, when it had attained the size of an orange. There was no enlargement of the axillary glands. The nipple was not retracted. The growth to the touch was hard and in spots, the skin had become adherent, giving rise to the pitted, somewhat brawny or lardaceous appearance, which is described by surgical writers as rather indicative of scirrhus of the breast. This appearance was sufficiently marked to cause the diagnosis of hard carcinoma to be suggested as probably correct. After removal, when the mass was laid open, both its surfaces did not appear concave, as is usually the case in a scirrhus. Microscopic examination cleared up the diagnosis, for, as you will see by examining the specimens, they show the typical appearances of a small spindle-cell sarcoma. It seemed a good case to illustrate the difficulties sometimes encountered in correctly diagnosticating tumors of the breast, and for this reason, have briefly placed it upon record.

CORRESPONDENCE.

NEW YORK LETTER.

New York, Aug. 25, 1884.

Editor Review: The adjournment of the medical societies until the autumnal months has given little current news for discussion.

Considerable indignation was expressed toward the government officials in allowing the entrance of a cargo of rags from Marseilles, which left that port June 10.

There exists at present no apprehension of an immediate invasion of the cholera. It has been the previous history of that disease to invade this country the year succeeding its invasion in Europe

At Roosevelt Hospital there is being laid the foundation for a new dispensary. The supply of such institutions seems to more than keep pace with the rapid growth of the city.

In the treatment of flesh wounds, iodoform, within the last year, has been steadily gaining favor and is now used throughout all the leading hospitals of the city. At Roosevelt iodoform ointment is almost entirely used for injecting sinuses. This is accomplished in a very novel way. To a painter's, tin, which is filled with the ointment, a rubber tube with a glass bulb at its distal extremity is attached. By holding the bulb firmly against the opening of the sinus gentle pressure on the tin readily forces the medicament into the abscess.

At the same institution they make their sponges out of absorbent cotton loosely enclosed with white mosquito netting, which is sometimes substituted by coarse muslin. These artificial sponges have the great advantages of cheapness, and especially cleanliness, as they are free from all impurities such as sand and are never used a second time.

The materials used for absorbent surgical dressings are in their order, peat, wood moss, wood,

wool and recently asbestos cotton made into bags and quilts and dipped into a solution of the bichloride of mercury (one part in five hundred).

The method of dressing flesh wounds, as after operations, was recited to us by one of the surgical staff in one of our large hospitals as follows: "Supposing the wound to be completely closed with sutures, and there exists no necessity for drainage, a little iodoform is dusted over the surface of the wound by means of an insufflator (such as used for insect powder answering the purpose nicely), then several layers of lint or gauze are moistened with a solution of the bichloride (1—500) and laid over this. If equable pressure is desired and especially if much discharge is expected, peat bags, also moistened in a bichloride solution, are applied and over this absorbent cotton is placed and the whole firmly bandaged.

If the wound is unsuitable to be entirely closed, a few strands of catgut, or, if the wound is large a decalcified drainage tube is inserted and the wound dressed with iodoform, etc., as before. Dressings in this way are not removed for for five to ten days, if the patient develops no constitutional symptoms and there is manifested no bad odor in the dressings. It is often the case in the second class of wounds mentioned that upon the first removal of the dressings the wound is entirely healed and the decalcified drainage tubes or catgut are completely absorbed."

Salicylated and borated cotton are not so much the fashion as formerly.

In ophthalmology, an ointment consisting of a drachm of the balsam of copaiba to an ounce of vaseline (the white vaseline being preferable) is being used with success as an application for chronic conjunctivitis; it seems to be especially beneficial in those old inflammations accompanied with cicatricial tissue.

At Dr. Bosworth's clinic chromic acid is principally used in destroying turbinated hypertrophies which are unsuitable cases for the snare.

Through the kindness of Dr. Walsh we were taken through the Ward's Island Male Insane Asylum, which now has a census of nearly fifteen hundred patients.

A remarkable feature of this institution, and which speaks well for its management, is the fact, that within the last six months out of this large number of patients, many of which are acute cases, not one has been put in a straight-jacket or even in seclusion.

Although this system was introduced principally on the ground of its being more humane it has proved itself of more therapeutic value than was anticipated. A night service has been in vogue for the last year, one physician making nightly rounds.

The sudden interest excited amongst the profession by the feats of Miss Lulu Hurst has as rapidly declined.

The New York Times very jocosely speaks of her as "Another Epidemic" declaring that "Women from the rural districts have contracted the disease by a single visit to Wallack's, and have gone home to Connecticut or to Dutchess county, where they are breaking furniture and tossing deacons and Methodist ministers like chaff before the wind. This must be stopped, or there will be no such thing as safety outside of a monastery."

J. W.

Chicago is to have a new hospital for women and children.

FOREIGN LETTER.

COPENHAGEN, August 11, 1884.

Editors Review: At Hamburg I met Dr. G.M.B. Maughs of our city and his admirable wife. Notwithstanding that our old friend has given up the active pursuit of medical practice and claims 'he is done,' still he visits the various hospitals and is as interested as ever in his profession. Among the operations we witnessed was a removal of the uterus per vaginam performed at the "Hamburger Allgemeine Krankenhaus" by Dr. Max Schede. Of this I may have more to say in the future.

At the University of Berlin the "Senate" met on August 1st and chose a rector and deans of the various faculties for the ensuing year.

The rectorate was conferred on Prof. Dernburg, Prof. A. Kirchhoff retiring. In place of Prof. Kleinert, Prof. Dr. von der Goltz was selected as dean of the theological faculty; the faculty of jurisprudence is presided over by Prof. Hinschius, vice Prof. Berner; the faculty of medicine is under the dean-ship of Prof. Leyden, Dr. Hirsch retiring; the philosophical faculty has Prof. Foerster as dean, Prof. Schwendener vacating.

The programme of the "International Medical Congress" is fixed as follows: On the evening of August 9: Reception of the visitors. Aug. 10: Fete at the Industrial Exposition; Aug. 13: Excursion to Kronborg and Helsingoer; Aug. 14: Banquet tendered by the municipality; Aug. 15: Galadiner tendered by the King at the palace in Christiansborg; Aug. 16; Grand ball and fete at the "Etablissement National."

So much for the festivities. The work of the Congress begins on Aug. 10, at the Industrial Ex- in the presence of the King, the Court, and many scientific authorities. Prof. Panum delivers the opening address. On every day thereafter a general session takes place at 3:30 P. M., at the university; lectures and papers by such savants as Virchow, Pasteur, Verneuil, William Gull, Tomassi Crudeli, and Panum will be presented. Besides, two section meetings take place daily from 10 to 12 M., and 1 to 3 P. M.

The attendance so far announced reaches 700, but new arrivals continually swell the number.

Yours truly, EDWARD BORCK.

POST-PARTUM CONVULSIONS.

NEW ALBIN, IA., Aug. 18, 1884.

Editors Review: Reading Dr. Carter's case of post-partum eclampsia in the last number of the REVIEW, called up a case that fell into my hands about seven years ago. I was called in the night to see a lady twelve miles away and was informed by the messenger that she had "fits," but I could learn nothing of the nature of the "fits," although the messenger was an intelligent clergyman. But when I arrived upon the scene I found my patient had been delivered of a healthy and well-formed male child six hours before my arrival; and that the placenta was easily delivered twenty-five minutes after the child. The midwife said, she had complained of a severe headache, but had flooded profusely, and the headache had nearly left her, when she gave a "fearful hiss" and went into a a fit. That these fits had recurred with great regularity once in every thirty minutes, and there had been no return to full consciousness. By this

time it was storming fearfully, was very dark and I found to my dismay that I was like the Dutch sailor who had left his anchor at home; for, a mystery to me, my medicine-chest was not in the carriage, and I had only a small pocket-case to fly to in my distress. No chloroform, no bromide of potassium, no chloral, no morphine! The woman was already depleted. I looked through my little pocket-case and found I had about two grains of opium. Just then she had a fearful convulsion, and I thought, "what a weapon to meet death with in single-handed combat. But I remembered that Churchill just hinted at the use of tartrate of antimony. And a hint was enough in that storm. Of course I gave those two poor, little grains of opium and made a solution of sixteen grains of the antimony in one ounce of water. Of this I gave one teaspoonful every half hour. When she had taken four teaspoonsful the interval lengthened a little and the convulsions were not so severe, and her consciousness returned a little. When she had taken in all fourteen grains of the antimony she broke out in a profuse perspiration, had a copious discharge from the bowels, and the convulsions ceased. She made a rapid recovery.

The strange part of this is, she did not vomit at all.

Of course I applied cold to the head and plastered her extremities with mustard, and removed all clots from the vagina.

I have had two similar cases since, when I was well supplied with drugs. One of them died, and have queried whether that one might not have lived if my medicine-chest had been left at home.

R. C. Ambler.

CONGENITAL DEFORMITY OF THE PENIS.

Azle, Texas, August 5, 1884.

Editor Medical Review:

Some ten days ago I was called to Mrs. A., in labor; second child; above medium size; æt. 25 years; labor tedious; was delivered in about ten hours of a large boy; weight eleven and one-quarter pounds.

While separating the cord I noticed something abnormal, or rather a deformity of the penis. Gave child to nurse, and after removing the placenta and making my patient as comfortable as possible, I made an examination of the child's privates. The penis was about two inches long and very large. No prepuce. In fact, the integument only extended about one-half an inch from the root of the penis, which looked as if it had been circumcised. The glans penis was very much above normal size, and had no vertical fissure nor meatus urinarius. The frenulum preputii was very tense, drawing the glans penis downward and backward.

At the connection of the frenulum with the membrane covering the body of the penis I discovered a small opening which proved to be the entrance to the meatus urinarius I learn from Mr. A. that his wife's father and also one of her brothers are in the same condition.

I would be pleased to hear from some of the older and more experienced members of the profession on this subject. For the want of a better name I will call this a case of Congenital Deformity of the Penis. Yours truly,

J. H. Wayland, M. D.

In reply to our correspondent we wish to state that the description given of the malformation in question prompts us to pronounce it a case of hypospadiasis; or, as it is also styled, fissura urethræ inferior. This condition is due to arrested development, and is explained by the following embryological facts. In the fourth week of embryonic development the intestine and the urogenital organs terminate in a common sinus styled the cloaca; the external opening of this cloaca is situated there, where, subsequently, the perineum develops and presents itself as a simple fissure. Later on the cloaca becomes divided by a transverse septum into two channels, the posterior being the rectum; the anterior channel represents the urogenital sinus. This division of the cloaca is also attended by a division of its single opening into two openings. The posterior is the anus, the anterior the orifice of the urogenital sinus; the interposing tissue is the future perineum.

Before this division has taken place and is complete, there appears near the symphysis pubis a formation called the colliculus genitalis, which develops from two lateral and symmetrical parts that grow together. Taking now for granted that the embryo is a male, then this colliculus grows considerably, and we see in its two parts the developing corpora cavernosa penis, and betweent hese, on the lower side a furrow, the genital furrow. Upon the conjoined corpora cavernosa the glans penis develops. In the meantime, the developing perineum pushes forward the urogenital opening towards the symphysis; that is to say, the opening becomes located at the lower surface of the colliculus genitalis; with the gradual development of this the furrow at its lower surface is followed up and closed by the posterior border of the urogenital opening. In this wise the urethra from the prostate gland to the glans penis is formed. According to Rose the part of the urethra that is situated in the glans penis is formed by sacculation of the integument. Now it is plain, that arrested development will bring about various degrees of malformation. The lesser degrees of hypospadiasis are, according to Rose, due to a failure of integumentary sacculation; and thus the glans has no meatus, but the opening of the genito-urinary channel lies back of the glans, and this may show a furrow only. Greater degrees of arrested development show the channel closed only so far that the opening may be midway at the lower surface of the penis, or, indeed, at the root of the penis next to the scrotum. Still earlier arrest of devel-

opment may present the scrotum and even a part of the perineum split, and thus, although the individual be a male, the semblance of the external genital organs is female.

In cases of marked hypospadiasis the situation of the genito-urinary opening near the root of the penis may cause inability to impregnate, the seminal secretion being deposited at the vestibulum vaginæ. The operative treatment for the correction of the functional disturbances has been developed by Dieffenbach, Nelaton, and especially by Thiersch.—[EDITOR REVIEW.]

A CHALLENGE TO THE CHOLERA MICROBE.

A Polish middle aged man is said to have offered himself as a subject for the demonstration of the cholera microbe in order to ascertain whether the microbe of pure culture is capable of developing the disease. Of course, no one would be justified in such a course, even with the consent of the individual, notwithstanding the advantage which, might accrue from a possible settlement of the question in the affirmative. Yet we cannot but appreciate the devotion of the individual, supposing that such an offer is genuine. We do not expect that he could have sprung from the ranks of the antivivisectionists. On the contrary, we claim that the antivivisectionists, to be consistent, should rise collectively against the wholesale destruction of life whether frogs, flies or microbes.

ITEMS.

We are, through the kindness of Dr. Edward Borck, in receipt of the complete Rules and Programme of the International Medical Congress that met in Copenhagen, Aug. 10 to 16. The work of the congress was divided into fourteen sections and members on inscribing their names on the members' roll are requested to indicate the section or sections to which they intend principally to adhere. The following are the sections:

I. Anatomy.
II. Physiology.
III. General Pathology and Pathological Anatomy.
IV. Medicine.
V. Surgery.
VI. Obstetrics and Gynecology.
VII. Ophthalmology.
VIII. Pediatrics.
IX. Dermatology and Syphilis.
X. Psychiatry and Nervous Diseases.
XI. Laryngology.
XII. Otology.
XIII. State Medicine.
XIV. Military Medicine.

The subjects announced and the men presenting them are of great interest, and we may expect to learn much when the reports reach us.

Religious services in memory of Dr. Octave Pavy, the surgeon and naturalist of the Greely expedition, were had at Christ Church, in this city, on Sunday last. Dr. Pavy was a resident of St. Louis for many years and a graduate of the Missouri Medical College. A civic memorial is to take place in October.

Prof. Nussbaum, of Munich, places a few drops of oil of cloves on the towel before giving chloroform when the patient has a repugnance to the odor of that anæsthetic.

Experiments by Messrs. R. Pictet and E. Yung have resulted in showing that some of the microbes at least can sustain a temperature of—70 degrees to—130 degrees C.(—94 degrees to—200 degrees Fahr.) for periods of several hours, and still live and thrive on the accession of more favorable temperatures.

A cone vesical calculus passed through the rectum is recorded by Dr. McElroy. When the boy was standing the urine passed through the normal channel, but when in the recumbent position it passed through the rectum. The boy died a year later and the vesico-rectal fistula large enough to admit a finger was revealed,

The next International Medical Congress is to take place at Washington, D. C,

Dr. William A. Byrd, of Quincy, Ill., paid the REVIEW office a pleasant visit last Saturday. The doctor was en route home from attendance, at Flora, Ill., upon the meeting of the committee of arrangements to prepare for the assembly of the Mississippi Valley Medical Society, at Springfield, Ill., on Sept. 23d prox. The committee consists of Drs. B. M. Griffith, of Springfield, Ill; Pearson, of Indianapolis; Owen, of Evansville; Beard, of Vincennes; Byrd, of Quincy; and Burton, of Mitchell, Ind., all of whom were at the Flora conference. Dr. Byrd represents the prospects of the approaching session as flattering in the extreme in point of attendance and professional interest.

Dr. Robert E. Rogers, Professor of Chemistry in Jefferson Medical College, has placed his resignation in the hands of the trustees of that college

The oil of white birch-bark (oleum betulæ), which gives to Russia leather its peculiar aromatic and lasting qualities, when dissolved in alcohol is said to be excellent for preserving and proofing fabrics. It renders them acid and insect proof, and does not destroy the pliability of the fabric.—Chem. and Drugg.

Hair and horn, says Mr. Cresswell, England, in the lower animals, grow almost twice as fast during a condition of fever as in a condition of health.

The University of Heidelberg positively refuses to admit women to its courses, despite many generous offers in money.

It has been announced that the International Medical Congress would postpone its meeting on account of the cholera. The report, however, is unfounded, and the Congress will open on the date originally announced.

"I tell you sir," said Dr. —— one morning to the village apothecary, "I tell you, sir, the *vox populi* should not—must not be regarded." "What, doctor!" exclaimed the apothecary, rubbing his hands. "You din't say that's broken out in town, too, has it? Lord help us! what unhealthy times these are!"

The last meeting of the British Medical Association, held in Belfast, Ireland, July 29 to August 1, was well attended, and as successful as any of the preceding ones.

Lawson Tait reports five cases in which he opened the abdomen for rupture of the sac in extra-uterine pregnancy. Four cases out of the five made an excellent remedy. In view of the fact that these cases die without treatment this result is very suggestive. If he finds the rupture in the Fallopian tube, he removes the tube entire.

Ointment of veratria, 2 grains to 1 ounce, is said to be an efficient remedy for pruritus, when that affection is limited to particular regions.

Lawson Tait recommends the radical cure of all kinds of hernia by abdominal section. After reducing the hernia, he pares the edge of the hernial opening and sews it up, thus producing a radical cure. He thinks the future of the operation is certain. The cases he operates on are those having ovarian disease, but he thinks that the same procedure is fitting for uncomplicated cases of hernia.

The ashes of Prof. S. D. Gross weighed seven pounds. They were enclosed in a marble urn about three feet high, unornamented and without inscription, and placed beside the coffin of his late wife in the family vault at Woodlawn cemetery.

Dr. T. Gaillard Thomas divides the American women into two classes; one class comprising those who desire above all things to become pregnant, and the other those who are anxious above all not to bear children.

The Medical Record suggests that many physicians would prefer to contribute simply to the memory of Gross, and not at the same time to the resources of a prosperous medical institution.

We learn that a night school for quizzes demonstration of anatomy, operative and minor surgery, experimental physiology, microscopy, examination of urine, etc., has been established in St. Louis. It will be in charge of Drs. Frank L. James and Waldo Briggs, and is intended for the additional instruction of students attending the various medical colleges in the city.

The Courier Record of Medicine extols the shrewdness of the advertising done by the specialist who has a "Skin Hospital." or an "Invalid Home," or an "Inebriate Asylum," a "Private Sanitarium," or a "Home," or an "Infirmary" of one sort or another. These advertisers are very intolerant of all other sorts of advertising. The Courier says that it has shaken all such off.

STATE BOARDS OF MEDICAL EXAMINERS—RECENT EFFORTS FOR THEIR ESTABLISHMENT.—At the last meeting of the Ohio State Medical Society, a resolution was passed calling for the appointment of a State Board of Medical Examiners, who should examine all who desire to practice medicine in Ohio, whether they be graduates or not. None of these examiners were to have any connection with any medical college. The diplomas of all medical colleges were no longer to count as licenses to practice medicine. The resolution was vigorously opposed, but the fact that it could be carried indicates the strength of the movement among such as attend the State Society meetings.

The Indiana State Medical Society passed a resolution affirming the desirability of such a movement. The New York profession are and have been laboring to accomplish the same purpose.

Of all the schemes for benefitting the profession by legislation, we regard this as the most hopeful. It makes medical colleges simple educational institutions, rather than license-vending mills. The honest, competent medical colleges will then stand a fair chance. If the examining board be efficiently constituted, all will have to do better teaching or shut up. Students will not continue to attend such colleges as do not so train them that they may be able to pass the State examination. In fact, private tutors will have as good show as those in New York in fitting college graduates so that they can pass the examinations needful to enter the place of Hospital Internes. That the agitation will go on with increasing vigor there can be no doubt. The past record of the movement fully shows this. The constant overcrowding of the profession will lead to more and more careful scrutiny into the causes which induce it, and the means for removing these causes. —*Detroit Lancet.*

DEATHS IN ST. LOUIS FOR THE WEEK ENDING AUGUST 23, 1884.

Small-pox	
Measles	1
Scarlatina	1
Diphtheria	4
Membranous croup	2
Whooping cough	
Typhoid fever	5
Cerebro-spinal fever	1
Remittent, Intermittent, Typho-malarial, congestive and simple continued fevers	10
Puerperal fever	
Diarrhœl Diseases.	
Under 5 years	25
Other ages	7
Erysipelas	
Pyæmia and Septicæmia	3
Syphilis	2
Inanition, want of breast milk, etc	1
Alcoholism	3
Other zymotic diseases	
Rheumatism and gout	
Cancer and malignant tumor	4
Phthisis and tuberculosis Pulmon	13
Marasmus—Tabes mesenterica and scrofula	17
Hydrocephalus, tubercular meningitis, etc	1
Other constitutional diseases	2
Bronchitis	3
Pneumonia	7
Other diseases respiratory organs	5
Diseases of the circulatory system	4
Meningitis and encephalitis	5
Convulsions and trismus	7
Heat stroke	
Apoplexy	1
Other diseases of the brain and nervous system	5
Cirrhosis of liver and hepatitis	4
Enteritis, gastro-enteritis, peritonitis and gastritis	3
Bright's disease and nephritis	
Other diseases urinary organs	
Diseases generative organs	
Diseases of the locomotory organs	
Diseases of the integument	
Accidents of pregnancy and childbirth	3
Congenital debility, malformation, etc	5
Senility	7
Surgical operations	
Deaths by suicide	5
Deaths by homicide	
Deaths by accident	5
Execution by warrant of law	
Unknown	
Total Deaths from all Causes	173
Total zymotic Diseases	67
Total Consitutional Diseases	37
Total Local Diseases	44
Total Developmental Diseases	15
Deaths by Violence	10
Unknown	

GIB. W. CARSON, M. D.,
Clerk of Health Commissioner and Board of Health.

THE WEEKLY MEDICAL REVIEW.

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AMERICAN PUBLIC HEALTH ASSOCIATION.—Arrangements for the Twelfth Annual Session of this association at St. Louis, Mo., on Tuesday, Wednesday, Thursday and Friday, October 14 to 17, 1884, are being pushed and perfected. The topics that will be presented for consideration have been announced already in these pages. The meeting undoubtedly will be largely attended. The topic of especial interest this year will be the cholera, one of deep concern to the whole land. It was the discussion of yellow fever that made the New Orleans meeting such a memorable one. Now with a foe abroad that menaces not alone the Mississippi Valley but the States, one and all, an interest, even greater than that manifested at New Orleans, is aroused. During the session of the Association the REVIEW will be issued daily, in order to embrace the proceedings in full. Other matters of current interest will be embodied in these issues. The subscribers of the REVIEW are to receive all of these several numbers under one cover, in lieu of one of the regular issues.

DURATION OF THE MENSTRUAL HEMORRHAGE IN RELATION TO THE DEVELOPMENT OF THE FETUS AT TERM.—The London Medical Record summarizes a paper by Cuzzi (Revista Clinica and Annali Univ. di Med., July, 1883), in which the author seeks to establish his conclusions on the basis of much statistical material collected in the clinics of Modena, Milan and Turin. He was led to this research by the idea that by the amenorrhea of pregnancy a so much greater quantity of maternal nourishment was retained for the benefit of the fetus, as the sanguineous loss was greater in menstruation. Not being able to determine exactly the quantity lost at each period he took its duration as a guide, which, considering the number of his observations, may be regarded as more or less equivalent. As to a longer duration of the menstrual hemorrhage a corresponding ovarian activity can be supposed; so, also, the hypothesis may be justified of a more easy rupture of more ovisacs, and a greater probability of multiple pregnancy. From the analysis of very numerous observations Prof. Cuzzi thinks himself justified in formulating the following conclusions:

1. The weight and length of the fetus at term are in direct relation with the number of days menstruation occupied. The longer the usual period of menstruation the heavier and larger the fetus.

2. There is a direct relation between multiple pregnancy and the duration of the menstrual period. That is, multiple pregnancy is most frequent in women in whom the period is long and the loss free.

WEIGERT AND LUDWIG.—The Leipzig correspondent of the Canadian Medical and Surgical Journal thus speaks of Professors Weigert and Ludwig. After regretting the irreparable loss which the illness of Cohnheim—chronic Bright's disease—involves, he says:

The charge of the laboratory is virtually with Professor Weigert, to whom medicine is under a deep debt of obligation for the introduction of the use of aniline dyes in histological work, as well as for the unravelling of many knots in pathological histology. He is a model of industry—first at work in the morning, last to leave at night—extremely affable and attentive, qualities which go so far to make one's stay in a laboratory com-

fortable and agreeable. I know of no place where a man can better work at pathological histology. Perhaps the most notable figure in medical Leipzig is Prof. Ludwig, Director of the Physiological Institute, and the Nestor of German physiologists. Indeed he has a higher claim than this, for when the history of experimental physiology shall be written, his name will stand pre-eminent with those of Magendie and Claude Bernard. He is now an old man, with bodily vigor somewhat abated, but, mentally, fresh and suggestive as ever. He has the honor of having trained a larger number of physiologists than any other living teacher; his pupils are scattered the world over, and there is scarcely a worker of note in Europe—bar France—who has not spent some time in his laboratory. Two circumstances have combined to this result—his extremely attractive and sympathetic nature, which has made each pupil, not only a co-worker, but a life-long friend, and then his extremely suggestive mind, always ready to broach problems for experimental solution, and always able to assist in devising the methods and apparatus necessary for the carrying out of any given research. The laboratory is extremely well equipped, with histological and chemical departments, as well as the special physiological, which occupies the main portion.

An Important Point in Testing for Albumen.—The Medical and Surgical Reporter contains the following: It is customary for the physician to request his patient to send him a sample of urine passed the first thing in the morning, when he desires to examine it for albumen. That this may mislead him is suggested by the following case which a correspondent reports in the British Medical Journal.

A girl, aged 13, fairly healthy, but not over strong, was brought to him about ten months ago, said to be suffering from "incontinence of urine" and debility. On examining the urine, he found that it was loaded with albumen; there was no anasarca and cardiac mischief. He prescribed tincture of perchloride of iron and dilute nitro-hydrochloric acid, with the result that nearly all trace of albumen had disappeared in about six weeks, when she went to the seaside, and he lost sight of her for about two months. Soon after her return he again examined the urine, and found it loaded with albumen. He again prescribed the iron and acid, and gave directions that the urine first passed in the morning should be sent to him for examination regularly every few days. This was done, and he was glad to find almost immediately marked improvement, until one day, by mistake, urine voided in the middle of the day was sent, and this he found to be loaded with albumen. He then gave directions that two samples should be sent on the same day every week, one being that passed the first thing in the morning, and the other later in the day. The result of his investigation was, that the former was perfectly normal and free from albumen, and the latter was decidedly albuminous. The amount of albumen varied, sometimes being considerable, sometimes hardly perceptible. At the present time the morning urine is perfectly free, but that passed at midday contains a decided trace, and this state of things has existed for some weeks past.

The First Discoverer of the Cholera Germ.—Naturally, says the Med. Record, the questions of priority as to the discovery of the cholera bacillus now appear. A correspondent of The Lancet puts in a claim for the late Professor Pacini, of Florence, the discoverer of certain corpuscles in the skin bearing his name. In 1854 he wrote to the Italian Medical Gazette as follows: "Examining minutely the different parts of the gastro-enteric tube of subjects dead from cholera when in the algid state, I was forced to the conviction that the epithelial lesion is covered by nothing but a very simple organism of extreme tenuity, which I shall call 'microbe,' a term generic and modern, and with special reference to the disease in question, 'cholerigenous microbe.' This discovery was more quickly and thoroughly appreciated by

foreigners than by its author's own countrymen, and in 1865, on the next cholera visitation, Pacini wrote: "When my scientific labors, having made the tour of Europe, will have returned arrayed in foreign garb, to Florence, they will have permission to enter the schools, and then we shall be enjoying the tranquil repose of Trespiano—in our grave, in short." This bitter forecast, says The Lancet, has been verified almost to the letter, Pacini's doctrine, rehabilitated by the German Cholera Commission, being now adopted by his compatriots and taught in the Instituti Pathologici of Italy a year after his death.

We must dissent from the opinion that Pacini discovered the cholera bacillus. He very likely saw some minute organisms in the intestine, as many others have done, but the cholera bacillus, according to Koch's description, is revealed by a one-twefith oil immersion with an Abbé condenser, the tissue being dried and stained with fuchsin. It is quite safe to say that Koch is the Columbus of the Comma-Bacillus, whatever its significance may turn out to be.

Treatment of Ununited Fracture of the Tibia.—Dr. Eugene Hahn writes, in the Centralblatt für Chirurgie, (Med. Record), describing a new procedure employed by him with success in the treatment of pseudarthrosis of the tibia. The case was one of compound comminuted fracture, in which there had been a loss of a considerable amount of bone-substance, the two ends of the tibia being separated about three inches. Various attempts had been made to secure union without success, until it occurred to Dr. Hahn to implant the broken end of the fibula, which bone had been fractured higher up than the tibia, into the medullary canal of the upper fragment of the tibia. He did so, and union took place between the two bones with the result of restoring the usefulness of the limb. The patient wore a light retention splint on the leg, and was able to walk about with ease.

Milk Diet for Five Years.—Dr. G. Johnson in introducing the treatment of albuminuria for discussion before the British Medical Association narrates a case of a man of 55 years whose exclusive diet for nearly five years, till he was sixty years of age, consisted of milk alone. He never took even a cracker or bread, except when he happened to be travelling and could not get milk. His usual allowance was a gallon of skim milk daily. The albuminuria is said to have been brought on by a too generous diet and the recovery is said to have been complete and a gradual return to a mixed diet was allowed.

Locomotor Ataxia from Syphilis.—It is very rare that the physician has the opportunity of treating syphilis according to experience of those who have the best means of speaking authoritatively on the subject. It is only on the condition of the patient having the greatest confidence in his medical adviser that he can be induced to continue a course of medicine after all outward manifestations are past. Whether as a consequence or not it certainly is a fact that every physician receives cases which reveal its inroads at long intervals when the patient himself has well-nigh forgotten the circumstance. No matter how sincere the physician may be in his warnings the neglected cases will occur. At the close of a lecture on the subject Dr. Althaus thus expresses himself:

"In conclusion, let me for one instant draw your attention to the practical deductions which appear to follow irresistibly from the facts I have brought before you. I hope I may have succeeded in showing, that in the vast majority of cases of locomotor ataxy, syphilis is the cause of the complaint—syphilis which has not been sufficiently treated in the beginning, and which might never have led to such results if it had been more energetically combated at the time of its first appearance. Allow me, therefore, most earnestly to entreat you to take syphilis well in hand at the earliest stage of its appearance, when it is much more under our control than at a later period of its existence; and do not

rest in your endeavors until you have good reason to believe that the very germ and vestige of that horrible poison has been thoroughly uprooted and destroyed. Examine such of your patients as have had secondary symptoms, from time to time, for the knee-jerk, loss of which I believe to be the first symptom of tabes; and, should you fail to elicit it, take it as a warning that locomotor ataxy has pushed forward its outposts, and is on the point of invading the system. Do, then, your best to obstruct its further progress by every means in your power; and let us thus, by suppressing that terrible and painful malady, tabes, add one more triumph to the victories of preventive medicine."

The Collective Investigation of Diseases.—There is no one event in the modern history of medicine that is likely to be so productive of practical results as the resolution adopted by the British Medical Association to prosecute unitedly the investigation of diseases. We are glad to see that the idea has been adopted in Germany, and we are sure that when the Germans get through with their report on the subject with which they have begun—tuberculosis—we shall have the means of obtaining a much more accurate idea of the various phases and relations of tuberculosis than has previously been possible. Another step of progress has been made in the presentation of this subject to the International Medical Congress at Copenhagen in the very able address delivered by Sir William W. Gull, who was deputed by the British Committee for that purpose. This universal spirit of inquiry, the sole object of which is the isolation of truth from the errors consequent to personal peculiarities of the observer for the universal good, is one of the brightest testimonies to that goodness of heart, that integrity of purpose which characterizes truly scientific men everywhere, and shows how completely they can ignore the clatter of those who charge them with cruelty to animals. Moreover, this universal effort to develop truth is one of the most important arguments of the rapid advance of a true civilization that the human race have yet developed. Certainly in no department of human study is there displayed more universal fraternal feeling than in the combined effort now being put forth to know and propagate the knowledge of the peculiarities of the human organism.

The international study of diseases will develop for us, in a way that no other process can, several fundamental peculiarities. Perhaps, nowhere else in the world could we see just such cases as Charcot of Paris exhibits to his visitors, but just why France, or Paris in particular, should develop such cases remains a mystery. Probably there is more tobacco amaurosis and certainly more gout in England than any other country, but the hidden "wherefore" will only be learned by the combined observation of many able minds. We shall try and show our appreciation of such efforts by reflecting some of the light which such combined effort affords.

Dr. L. A. Sayre on the Treatment of Spinal Curvature in Belfast.—The reception of Dr. Sayre in Belfast must have been very agreeable to him, judging from the unanimity of opinion expressed relative to the experience of the profession there in reference to the plaster-jacket which bears his name. Dr. S. after his further experience with all the various methods of applying the same principle still claims the advantage to lie with the plaster-of-Paris jacket put on while the patient is in the suspended position. He complains of the lack of attention to details exhibited by many of the profession, who apply the jacket, and leaves us to infer that many of the cases of non-success must be attributed to this cause. Personally he has yet to see the case where the patient has not experienced instant relief when the jacket has been properly applied.

Mr. Roth, London, claims to have visited every orthopaedic surgeon in central Europe that he could hear of, and that he had not seen a single support that came near to Prof. Sayre's plaster-jacket in efficiency in fixing the spinal column. But the plaster-of-Paris

jacket must be properly applied; and all complaints on the score of want of cleanliness were easily overcome by using two flannel vests. The one next to the skin could be changed as often as was required, once or twice a week, or even daily, by the simple expedient of attaching a clean flannel vest to the lower border of the dirty vest, and then drawing the latter up towards the patient's head and shoulders, the clean one following it. He had had cases of spinal caries, that had frequently worn the same unopened plaster jacket for twelve or eighteen months, without the slightest discomfort being felt, or any complaint being made. If there were any mark or stain on the removed dirty vest, attention was at once directed to the place where any abrasion of the skin had taken place. The most successful cases of spinal caries for treatment by Sayre's plaster-jacket were, no doubt, those where the disease was in the lumbar or lower dorsal vertebræ; but, when there was disease in the cervical Mr. Roth's experience was that the head piece of the jury-mast should be a fixture, and not movable, as advised by Dr. Sayre.

We cannot do better, in order to give our readers an accurate idea of the whole discussion, than to add Dr. Sayre's closing remarks, and, although he refers to a few remarks from Dr. Roth which we have not quoted, the explanation of Dr. S. will be readily understood.

Let us not quarrel, he says, about theories; for, however much we may differ in regard to the pathology of Pott's disease, and the mode of producing the deformity in lateral curvature, our desire is to cure the patient as speedily as possible, and with the greatest ease to him, at the same time allowing him to take exercise. That the method of suspension and the use of the plaster-of-Paris jacket accomplishes all these results, is amply proven by the testimony of the various gentlemen to-day, which fully bears out my own experience. This specimen, which I show you, came from a man whom I put up in 1877 in St. Patrick's Home for Incurables, Cork, with Dr. O'Sullivan. He had been paralyzed for three years previously. He had been in the Northern Infirmary for five months and a half, five months in the Southern Infirmary, and finally in the Home of the Incurables, where I saw him. He had complete loss of motion and sensation in both legs. The day after the application of the jacket he was able voluntarily to move his feet, and in two days he walked about the ward on crutches, and in a week walked well without any support. He wore this jacket two years and a half, when Dr. Hobart, of Cork, removed it, and applied another; and Dr. Hobart informed me, that he at this time found no abrasion of the skin on any part of his body, and that he had never complained of the slightest inconvenience. For some months previous to this time he had been doing full duty as assistant orderly in the hospital. The jacket applied by Dr. Hobart in 1880 he wore for eleven months; and, when it was removed, consolidation of his spinal column was complete, the patient in excellent health, and the skin free from any abrasion. In 1883 he came to America, and obtained a situation as orderly in the Lunatic Asylum on Blackwell's Island, which place he lost on the burning of the institution in January, 1884. He was exposed at this time and caught cold, and went to St. Francis Hospital on March 6th, where he died suddenly on March 9th, while eating his dinner; the death was caused by heart-failure, as I am informed by the house staff. You will see that the third and fourth dorsal vertebræ are fused together, as are also the sixth, seventh and eighth. The point to which I would call your attention is the rapidity with which, when the spinal cord was relieved from pressure, the normal functions were restored, and that the man was enabled to earn his living while under process of treatment. A very similar experience occurred in the case of James Halligan, who was sent to Mr. Brodhurst, of the Royal Orthopædic Hospital, of London, by Dr. Macnaughton Jones, of Cork (now of London), and who came into the hospital while we were discussing the subject. He had been disabled for months from Pott's disease of

the middle dorsal vertebræ; he could only move about slowly on his crutches, and that with very great difficulty, and was unable to stand without support. Mr. Brodhurst allowed me to apply the plaster-jacket to him, at the same time expressing the opinion that it would be of no use. Mr. Balkwill went with me and had a photograph taken of the man, and I applied the plaster-jacket in the Royal Orthopædic Hospital. I went the following day to obtain a history of the case, and learned that the man had left the hospital the evening before, only a few hours after the jacket had been applied, and had not returned. They had taken no notes of his case, and did not even know his name until Mr. Brodhurst referred to the letter from Dr. Jones, which he had still in his pocket. He was much annoyed at the man's departure and censured himself for having allowed so crude an experiment to be performed in his hospital, and attributed the man's departure to the cruel treatment to which he had been subjected by the American experimenter. Six weeks afterwards I met this man in Cork; and he informed me that he felt so comfortable immediately after the jacket was applied that he returned to Dublin by that evening's train, and came to Cork the following day, and had been doing his duty at the station ever since, without losing a day from his work. Dr. Macnaughton Jones applied three more jackets to this man during the succeeding eighteen months, by which time he was completely consolidated. I saw this man a few days since at the Limerick Junction trundling along his barrow loaded with trunks and in perfect health. I could mention many other cases precisely similar to these, but I refer to these because all the persons are in your immediate vicinity, and therefore the facts can be easily verified. Any treatment that can give immediate relief from pain, restore the paralytic to usefulness and activity while he is being cured, give to the child the enjoyments of his out-door sports, and ability to attend his school without interruption, and which, if commenced in time, can cure spinal caries without deformity, seems to me to be worthy of commendation, and certainly worthy of a trial. In regard to the treatment of lateral curvature, I regret exceedingly that Mr. Roth was not at my demonstration this morning, as he would then have learned that my views and his own are very similar; namely, that proper physical training and gymnastics are the only real cure for this deformity. and, in the slighter cases, no instrumental treatment is required; but in certain cases, like this (showing specimen), when the bones have become distorted, and the angles of the ribs permanently bent, no amount of voluntary power can ever restore them to position, neither will the plaster jacket, self-suspension nor any other treatment completely correct the deformity. In such cases self-suspension more nearly restores the patient to a normal position than any other treatment, and the plaster-of-Paris jacket, applied as a corset, retains him in the improved condition better than any other apparatus that has yet been devised, and is infinitely more comfortable to the wearer. As the time alloted me for discussion has expired, I must defer any further remarks until I apply the completed corset on Friday morning to the case of lateral curvature, which I put up before you this morning.

Pediatric Aphorisms.—The Obstetrical Gazette quotes the following aphorisms of Prof. Letamendi (El Dictatem). They contain great truths and offer food for reflection and study not only to the physician but every parent.

1. Children are like the mob; they always complain with reason, although they cannot give the reason why they complain.

2. Always look at the lips of a pale and sickly child; if they are of a deep red color, beware of prescribing tonics internally. At the outset you will congratulate yourself, but in the long run you will repent of having employed them.

3. As a general rule, a sad child has an encephalic lesion; a furious child, an abdominal one; a soporific child has both, though indistinctly defined.

4. An attendance on children produces in the

mind of an observant physician the conviction that the half, at least, of adult transgressors are so through morbid abdominal influences.

5. A sunny living room, a clean skin, and an ounce of castor oil in the cupboard, these are the three great points of infantile hygiene.

6. To dispute the clinical value of tracheotomy in croup is a waste of time to no good purpose. Croup or no croup, if there be a positive obstruction to respiration in the larynx, it is but according to reason to open a way for sublaryngeal respiration. In the days of more knowledge and less nonsense, tracheotomy will be ranked among minor surgical operations.

7. Dentition is a true multiple pregnancy in which the uterus and its fetuses become petrified in proportion as they grow. It is not the direct or the eruptive pressure, but the lateral pressure of all together, that is the most dangerous. It is from this that so many cerebral symptoms appear which can in no way be relieved by incision of the gums. The only recourse against the danger of this tranverse pressure is to give the child more nourishment, in the hope that as the general condition is bettered the local condition will also improve.

8. If the incisors of the first dentition are serrated it is bad, but if those of the second formation are the same, it is worse. It foretells a number of lesions are arising from deficiency of mineral salts in the tissues. There is one only exception, and it is an important one. When the serrated incisors are seen in strong children in whom the fontanelles have closed early, it is a sign of a robust constitution. Instead of a number of small and sharp dentitions, there are a few large blunt ones.

9. To regard the eruption of the teeth as the sole factors in the general process known as the first dentition, is to perpetrate a sort of a medical synecdoche. Children get their first teeth because they are at the same time getting a second stomach and second intestines.

10. The body of a child possesses such a degree of "acoustic transparency" that in cases of necessity or convenience auscultation may be practiced with the hand, converting it into a telephone which will reveal as much to the physician as even his ear could do.

11. In practice it is well to distinguish with precision a case in which disease is due to lumbricoids from one in which lumbricoids are due to disease. For in the former case anthelmintics are of service, but in the latter they do harm.

12. Since, until a child is able to speak clearly, his relations with the physician are purely objective, it is very necessary that we should study as carefully as do the veterinarians the exact correspondence between lesions and the expression of the patient.

13. If you wish to cure rapidly and well joint-disease in infants, you must treat them as you would a conflagration—douches, douches, and more douches, until you have succeeded in extinguishing them.

14. The entire system of the moral relation between children and adults should be changed. To speak to them incorrectly merely because they cannot pronounce well; to excite their fears and arouse their weird imaginations simply because they are easily frightened and impressionable; to stimulate their vanity because they are naturally inclined to be vain, these and other similar actions are not only wrong, but absurd.

15. There is finally a danger to the women of contracting a vice as yet unregistered in the annals of concupiscence—mastomania, or the sensuality of nursing. When this physiological act degenerates into vice, nursing becomes so frequent as to be nearly continuous, and the result is ruin to both mother and child. Finally, the physician must here, as always be at once wise, discreet, of good judgment, and firm.

How to Cleanse and Bleach Sponges for Surgical or Gynecological uses is well worth knowing, being a matter of practical importance. The texture of the sponge should not suffer; and a method combining all requirementst is described by Dr. L. Curtis in the U. S. Med. Investigator as follows: Having made the sponges free from sand and calcareous matter by gently beating

them, wash them in water, squeeze them as dry as possible and then place a few at a time in a solution of Permanganate of Potassa, made by dissolving one hundred and eighty grains of the salt in five pints of water, and pouring a portion of the solution into a clean glazed vessel. Let them remain a few moments until they have acquired a dark mahogany-brown color, when they are to be squeezed by hand to free them from the solution. They are then dropped a few at a time into a bleaching solution made as follows: Hypo-sulphite of soda, ten ounces; water, sixty-eight fluid ounces; when dissolved, add five fluid ounces of muriatic acid.

This solution should be made the day before being wanted for use in order that the sulphur precipitated by the acid may be easily separated. This solution is poured off from the sulphur, and, if necessary, is strained through muslin into a glazed vessel. The sponges are allowed to remain in this solution a few moments, squeezing them with the hand occasionally in order that every part may be reached by the fluid; then squeeze out and wash through several waters to rid them of the sulphurous odors. They may be completely deodorized by washing them in a weak alkaline solution of bicarbonate of of soda, about one hundred grains to the pint, and then washing through several waters to free from any traces of the alkali. Much caution must be used in this last operation, lest the bleaching effect of the previous solutions be partly neutralized. When the sponges are nearly dry, immerse them into a solution of gycerine water, one-half ounce to the pint, squeeze them as dry as possible, and dry them in the shade—be sure and not let direct sunlight on them until dry. They will be as soft and white as wool.

Medical Life Peers.—The Lancet, July 12, 1884, says: We understand that Dr. Lyons, M. P., has given notice of an important amendment to be inserted in the Medical Act Amendment Bill, to the effect that two physicians of over twenty years' standing should be made life peers and act as lord justices of appeal in medico-legal trials. Such appointments have been urged by Sir Spencer Wells, Dr. Theodore Williams, and others, and will, if made, considerably strengthen the hands of justice.

The University of Heidelberg has declined an offer of 100,000 marks. The offer was made on condition that women should be admitted to the university studies.

A Salicylic Gutta-percha Plaster is recommended by Dr Thin, of London, as of great service in the removal of hardened epidermis, whether on the hands or feet.

Rapid Cure of Soft Chancres.—The Canadian Practitioner writes: Exceptionally, chancroids heal in fifteen days. The greater number require from four to six or even eight weeks, and some even take three or four months. After many trials Ricord found the best results from dressing with nitrate of silver, solution 1 in 30: then the tartrate of iron and potash, and more lately iodoform.

Hebra has lately promised an entire cure in a few days by the topical employment of salicylic acid. He begins by carefully cleansing the penis with warm water, removing all crusts and dried pus and trace of former dressings; for the latter he uses oil and spirit of soap. On the cleansed and dried penis salicylic acid is applied in a manner to cover only the sore and a very narrow margin. The healthy skin, as far as possible, must be preserved from all irritation which might favor auto-inoculation. The salicylic powder is maintained in place by a thin layer of wadding fixed by a band of adhesive plaster. If the suppuration is not very abundant it is sufficient to renew the dressing once in 24 hours—otherwise morning and evening—taking care to wash the wounds thoroughly each time.

After the end of the first day the ulceration is covered by a whitish scab, while the neighboring margin of skin is slightly reddened. The scab increases in thickness, and by the

third day the salicylic powder may be discontinued, and a simple ointment applied and kept in position by wadding and adhesive plaster. Usually the scab falls in half a day, leaving a simple wound, deprived of virulence, which only takes two or three days to heal completely. This method acts without causing pain, and is of very great cleanliness. The most important advantage is the suppression or abortion of buboes.

Dr. Barthélency, in reporting this communication for the Union Médicale, justly says that the method is worthy of trial.

PUERPERAL FEVER, IS IT OF BACTERIAL ORIGIN? Dr. Lomer's summary of conclusions relative to the bacterial aspect of puerperal fever is thus given by the Canadian Medical and Surgical Journal.

1. Of all micro-organisms found in puerperal-fever, the chain-like micrococci seem to be those to which we should especially direct our attention, and to which we should attach the greatest importance.

2. When in any case of puerperal fever their presence has been detected in the exudations, they have also been found in the deeper organs.

3. They have been found in erysipelas, scarlet fever, diphtheria, and puerperal fever, and in each possess the same form, and show the same disposition towards fertilizing fluids and coloring matters.

4. Although it is very probable that different varieties do exist among these diseases, we, as yet, have no positive proof of the fact.

5. A differentiation, according to size, is an extremely difficult, perhaps hopeless task, but, according to manner of growth, it may be possible.

6. Vaccination with cultivations of these micrococci from different diseases has proved fatal to animals, but has given no typical or characteristic results.

7. Chain-like micrococci have also been found in infected wounds, and in the blood of pyæmic patients.

8. The pathologico-anatomical investigations thus show that these clinically related diseases (puerperal fever, erysipelas, diphtheria, scarlet fever, and pyæmia) possess similar micro-organisms.

9. Besides the chain-like form, other micro-organisms may be present in puerperal fever—*i. e.*, mixed infection.

10. The presence of these latter in the cadaver does not always prove that they existed in the living body; on the contrary, they are often the result of post-mortem decomposition.

11. It is probable that the processes of decomposition are sometimes present before death actually takes place; different varieties of micro-organisms therefore found, for instance, during the death-struggle, may have nothing to do with the cause of the disease.

12. It is, as yet, impossible to classify puerperal fever, as regards course and prognosis, according to the varieties of micro-organisms found (Doleris), or according to their mode of invasion (Frænkel.

AN ADDRESS ON THE INTERNATIONAL COLLECTIVE INVESTIGATION OF DISEASE.

BY SIR WILLIAM W. GULL, BART., M. D., F. R. S.,
Consulting Physician to Guy's Hospital, etc.

Delivered at the International Medical Congress, Copenhagen, August, 1884.

GENTLEMEN, FRIENDS, AND COLLEAGUES.—I esteem it a great honor to be deputed to address you on this occasion, and on a matter which promises to contribute to the advancement of medical knowledge by a wider and fuller method than has yet been sufficiently attempted.

The subject of my address is the institution of an International Collective Investigation of Disease. This object, I need not say, is intimately connected with the main purpose of these Congresses; if not, indeed, in the natural course of things, an integral part of them. At present, we come together as individual cultivators and practitioners of medical science, each contributing his quota to our knowledge on this or that subject, which may or may not have been selected for thesis and discussion beforehand. Nor are our labors, even under these conditions, without ex-

cellent results. But a feeling is growing, and already widespread, that by a more organized combination, a more intimate and better co-operation, not only the members of these Congresses, but all the working members of our profession throughout the civilized world, might sooner or later be organized into a body of fellow-workers, associated for collecting information on medical questions over the widest area.

There is perhaps no profession which enforces upon its individual members so strongly as does medicine, the necessity of continued observation and intellectual cultivation; and there is no means by which this cultivation can be so well promoted as by meetings like the present, and by the active organizations, in the forms of committees or sub-committees, which, we hope and anticipate, may spring from them.

The human intellect in its single and separate operation may produce wonderful results; yet, isolated as a man may seem to be in the intellectual labor which occupies him, he makes but little progress apart from the aid and co-operation of other minds which have worked and are working in the same direction. And though, doubtless, it will always be the priviledge of the highest intelligence to clear the boundaries of knowledge, and to throw the rays of their genius into the surrounding darkness, yet all must be agreed on the great and almost supreme value of the intellectual co-operation of less gifted minds in the simple observation of facts, and especially when the needed facts are scattered over a wide field.

However much apart, as I say, a man may seem in the work of his intellect, he is really much less so than he seems to be; for, as we cannot refer the strength of our bodies to any particular food that we have taken, so neither can we track the thoughts of our minds to the sources whence they have been fed; and, if our social nature has been raised from savagery to civilization by social combination, it is even more necessary that our intellectual nature should be helped in its growth and nurture by such intercourse and association as are here presented, and which we now propose further to advance.

My great countryman, Bacon, has not generally been well received in the school of German philosophy; so that I must use some caution in citing him in favor of intellectual combinations in pursuit of the sciences. Still, on thinking over the bearings of collective investigation of disease, I could not but feel that although three centuries have elapsed since he broached this question, and little has been done in it since, we might be about to realize his idea of a Novum Organon, the formation of a new intellectual machine for removing and overcoming the obstacles to our medical progress.

The purpose we have before us is no less than this: to enlarge and methodise intellectual co-operation, whereby not only the active, but the at present inactive, faculties of observation of the wide-spread members of our profession may be combined into one or more lines of energy. I am not unmindful how much this presupposes; how it assumes the combination of exact observation and record with refined criticism and analysis; how it demands the highest scientific perception, with the humble collection of the meanest facts; how, in fine, it means the development of intellectual combination into many forms of organization which should be not one but many instruments of research. Such a forecast may, perhaps, lead us to exclaim, "Who is sufficient for these things?" Yet happily the answer is near; time, though short for the individual, is inexhaustible in the race; the intellect is in its infancy, its powers of growth unexhausted; and to these, in their evolution there appears to be no limit. The work to be done is unchangeable; and there are eager and willing workers in all lands, who only need the encouragement and direction of the master-minds of medical science to set them to work.

Happily, the phenomena which demand our investigation, though complicated and transient, are, it need not be said, the result of unchangeable laws. The capriciousness of Nature, as we speak of it, is but the weakness of our own sense and understanding, and its so-called mystery and obscurity but the darkness in ourselves.

The physiologist and the pathologist have to admit that not even in the caprices of man is there capriciousness; that mental caprices have their organic basis; that the whims the fancies and the prejudices of the human mind not less than the changing activities of the functions of his body, or the revolution of the earth on which he lives, are but the resultants of unvarying laws, unchangeable as the fixity of the stars on which he gazes with wonder and admiration.

We may therefore have this encouragement, that when any of our work is done, however small and trifling it may seem, it is done and settled for all time, or at least so long as the laws of organization remain what they are; that the clearing of a fact in respect of disease will remain an imperishable inheritance of

knowledge to those who follow us, so long as there is disease in the world. We may support our labors, therefore, with a feeling of surety that the problem before us is a settled problem, however difficult its solution. Nature will not delude us, however much we may delude ourselves,

A superficial survey of the Sections of this Congress shows that the student of medicine occupies an unique position in the pursuit of knowledge. For instance, if I turn the leaves of the programme, I find that the Section of Anatomy invites attention to cell-nucleus and cell-division, the lowest unit of organization; and the Section of Psychiatria to the psychic-epileptic equivalent, which, as no one will deny, stretches to the other pole of knowledge; hence, surely no man more needs to lay hold of the unchanging idea of law than the student of medicine, as he ranges from one extreme of observation to another.

In the International Investigation of Disease, the prevalence of mental disorders in different nations will be the subject of inquiry; also the forms which these maladies take, according to nationality, occupation, stratum of society in which they occur, etc; the use of stimulants —alcohol, opium, hemp, tobacco, etc. This work obviously lies not only in the physical and physiological conditions of life, but in their intimate correlatives, the facts of psychology. The thoughts of the student of medicine must, therefore, range from the atoms that build up the textures to the hopes that make the man. And even perhaps further than this, for in most of us the unsatisfied mind cannot answer itself with the measurables and ponderables of physical science, however much it may admit that all else is dependent upon them,but will strive to go behind appearances and feelings to the substratum of their existence, and cannot find rest for its foot until it traces their relation to an unchangeable first cause.

Du Bois-Reymond might well remark that the problem of organization would be comparatively easy if it were unattended with feeling and thought; that it would then, as it were, present us only with an astronomical problem in which the atoms of things would, after the manner of the heavenly bodies, move on in their several orbits in lines which science might hope to deal with. For it is within the scope of science, even as we now understand it, to track an atom of oxygen, nitrogen, and hydrogen, or carbon through its synthesis in a plant to its combination in the elements of brain or muscle, and still on to its resolution and return to its original form, with corresponding evolution of force. But when this shall have been done, we have learnt nothing of pain, nothing of emotion, nothing, indeed,of the science of many of the common facts with which medicine has to deal every day. How different would be the problem for the physician if disease were unattended by pain or emotion, if the patient were indeed patient as unorganized materials are; if there were no hopes or fears on the part of the object to be dealt with, and no embarassment on the part of the practitioner from desire to please as well as to heal! Quacks would then be banished to limbo. The course of nature could be watched until the equilibrium of health was attained, and the temptations to polypharmacy would be no more. But then, on the other hand,we should have nothing to do with life in its higher form, which is our ever-abiding problem, and we should miss the stimulus of affection, which, like a constant trade-wind carries us forward—at least the majority of us.

If for these preliminary remarks I need any apology, might I not say that I have come from the country of Newton and Harvey, that I have travelled by the home of Spinoza, and that I am speaking in the presence of the countrymen of Descartes and Leibnitz?

Gentlemen, I do not appear here to-day on my own behalf, but on behalf of the Collective Investigation Committee of the British Medical Association. The British Medical Association is an Association of most of the medical practitioners in the kingdom of Great Britain and Ireland; and it has, I believe, affiliated associations in our colonies. It numbers from ten to twelve thousand members, all, or almost all of them, actively engaged in the practice of medicine. It is organized into about forty branches, with their presidents and committees. These branches have frequent meetings for the purposes of professional intercourse, and for reading and discussing papers on medical subjects. It has, moreover, a weekly journal of very extensive circulation, which records the transactions of the different branches, and supplies to its members lectures and communications on the most important current subjects in medical science. This Association has been founded over fifty years.

For some years past, and especially during the last four years, it has been felt that the aims of this great Association might be advanced to a higher point by establishing an organzied plan of medical observation amongst its members; and already subcommittees, to the number of fifty, comprising as many as a thousand members, have been established to carry forward this proposition.

I am deputed by the Central Committee of this Association to ask you to-day to extend this combination by establishing an International Committee of the Collective Investigation of Disease, and I trust this may commend itself to the Congress.

Such an International Committee would have objects entirely germane to the recognized purposes of the Congress itself. Probably, one might go even further, and say that such an International Committee should form an integral part of these International Medical Congresses, and that their operation would in time become one of the most fertile sources of international medical advancement. I am happy to think that but little argument will be required in this assembly to commend this proposition to your favour. Already in Berlin, the Verein für innere Medicin has adopted the principle and has established a committee, after the fashion of the British committee, to carry forward the work. The President of the Society, Professor Frerichs, has given his entire adhesion to the movement, and Professor Leyden has accepted the presidentship of the committee itself, which includes also very distinguished names; and I hope that one or more of our colleagues from Berlin will to-day add a few words in favor of the proposition I am called upon to make.

In putting arguments forward for the establishment of a National Collective Investigation in its more limited form, it was permissible to insist upon minor advantages to be expected from such association: I refer to its educational value, since it could not but happen that every co-operating member would learn much from the investigations proposed; and that, whilst he promoted science, he would no less promote his own intellectual status.

Again, I pointed out, in my address in London, that the family physician or practitioner has a sphere of observation specially favorable to the study of etiology and modes of extension of communicable disease. He has also special advantages for pathological study, which are not so much afforded to the professor in an university or hospital. It is his privilege to see the earliest beginning of disease, and to have the opportunity of tracing its evolution and decline; or, when so favorable a course does not happen, the steps of pathological progress are before him; whereas, at the end of life, when the whole organism crushes downwards into a chaos of pathological forms by the advance of disease, it is often imposible on the *post mortem* table to say where the failure began, and how it has advanced. The family physician's observations should thus supply a corrective to a too exclusive mechanical pathology.

Amongst the subjects suggesting themselves to us in England in near relation to this matter, was the formation of life-histories and family-histories in respect of disease; and these could only be obtained through the family physician. If such histories could be widely and accurately recorded, the natural associations of different forms of disease in individuals and families would be made evident, and might afford suggestions as to pathological relations not now suspected—relations between diseases which are separated in nosological treatises, but associated in Nature. This mode of inquiry, through family-history would open a wide page for the record of the pathology of ailments, a page than which there is none more interesting to the practitioner of medicine, since seven-tenths of his work, and perhaps more than this, lie in efforts to correct physiological deficiencies, and to maintain some near approach to the equilibrium of health, which a feeble organism, unaided, cannot reach.

On this part of the field it is that we can study the relations between functional and organic diseases, especially in the range of nervous affections, where the degenerative tissue-changes in one individual of a family may be compared with the physiological disturbances in another. It is also in these family histories that we might hope to have elucidated the difficulties of correlated pathologies; why, for instance, in a numerous family whose members are living under the same conditions, one or two should become the subjects of pulmonary phthisis, one or two the victims of rheumatism, another of epilepsy, whilst the others maintain a healthy equilibrium. If such a history should be repeated in ten thousand families, or in a hundred thousand, we surely might hope, by careful collation of the facts, to come to the groundwork of these differences, and to determine the rule which separates the epileptic and the rheumatic from the inroads of phthisis.

So much for the more limited, though not less important, advantages of national collective investigation; but in an international collective investigation the ground widens very much, not only from the different intellectual characters of its working members, but also from the greater variety under which disease presents itself.

The first gain, no doubt, will be from the intercourse and reaction of different national modes of thought, with and upon each other.

It need not be said that the ways in which any subject may be viewed do not depend upon the subject itself, but upon the varied capacity of the minds brought into relation to it. Minds evolved during ages under special local and national conditions, and educated in lines of their own, cannot fail to give new direction and shape to the questions proposed for solution.

Each national mind will feel a different mental necessity. This view might be much further enlarged, if this were the occasion for it. At the Congress in London, I endeavored to show that each nationality produces its own scientific school, and not least in respect of the science of medicine. One nationality is more distinguished by its powers of analysis, another by its powers of synthesis; one is critical, another historical; one characteristically anatomical, another physiological. Even if this occurred to only a limited degree, there must follow an interchange and fertilization of ideas. And let no one believe that this is a dream. We have reached no more than the threshold of intellectual evolution.

International associations like this will serve to nurse and nourish these powers in the future. But, however this may be, these movements and combinations are in accordance with the spirit of the age. It is on all hands felt and acknowledged that the individual worker, apart from his colleagues, cannot hope to do much in any department of science, and that it is only by combination of members and sub-division of labor that scientific observation can be carried on successfully. The establishment of an international collective investigation of disease appeals to us from every side; personally, as through its influence our energies are stimulated, and our intellectual activity varied; socially, since observations made in one country cannot but correct or support those made in another; collectively, since science is cosmopolitan, and can only grow well when fed from all sources. It has been objected that the results of collective investigation must, from the nature of the case, be inaccurate, superficial, and so far useless; that they are more likely to confirm prejudice than to extend knowledge; and, as regards their scientific value, science is made up of quite other stuff. Now to this may be answered that knowledge advances in many ways; not only by the investigations of the gifted workers of science, but by the casual observation of an isolated fact. Indeed, it has hitherto been objected, at least against the science of therapeutics, that more has been gained by accident than by methodical pursuit. The truth is that one step of knowledge, however gained, leads to another. The accidental infection of a milkmaid's hand, casually brought to the notice of Jenner in a country surgery, has not only contributed more than any other discovery to the limitation or suppression of a loathsome disease, but it has opened up pathological speculation of a far-reaching character, and which to-day, in the hands of Pasteur and his colleagues, reveals the hope that we have the key to many if not all infective diseases.

All will admit that, in the daily routine of practice, facts are occurring that are worthy of record; and that medical science loses much by the want of such record. By the combination proposed, what are now casual and wasted observations, would be methodised and stored for arrangement, comparison, and deduction.

(TO BE CONTINUED.)

TRANSLATIONS.

LUNG-SURGERY.

(Deahna; Schmidt's Jahrb.)

[CONCLUDED.]

The free opening and drainage of cavities was attended by fair success in the following instances.

Dr. v. Kaczorowski in Posen, (Deut. Med. Wchnschr. IX, 1884,) treated a young girl that had hectic fever; the diagnosis was undetermined between an empyema that had not fully discharged and a bronchiectatic cavity of the left lung. The condition of the patient was so deplorable that the only hope of salvation was in an operative measure calculated to allow the stagnating pus to drain off freely. A trial-puncture showed the presence of pus, and thereupon 5 cm. of the sixth rib were resected at the point of the lower scapular angle. The lung was but slightly adherent to the pleura and was separated completely as far as the fingers could reach. A place that fluctuated was so laid bare and this was perforated with the finger-nail and a cavity opened. This cavity was fully explored with the fingers; but slight hemorrhage followed. The cavity was then washed out with solution of salicylic acid and a thick drainage tube was inserted.

The reaction locally was pretty severe after this interference, but the secretion rapidly grew less after several large gangrenous pieces of lung tissue had been taken away.

After two weeks the patient was free from fever. The putrid expectoration ceased directly after the lung had been opened. When the patient left the hospital there was an excellent prospect of a most favorable termination. However during the after-treatment, outside of the hospital, a series of accidents occurred in consequence of which the fistula closed before the cavity was obliterated. Then the drainage tube slipped into the pleural cavity and brought on a pleuritis. The parents of the child refused to allow the cavity to be re-opened.

K., on the ground of this experience, claims that surgical interference in lung-trouble is indicated, but should be confined to cavities that lie near the thoracic walls.

A complete recovery in a similar case is reported by Dr. L. Rohden, of Lippspringe, (Deut. Med. Wchnschr. X. 1884).

A lady, twenty years of age, had cough and pneumonic trouble. A pleuritis sinistra ensued and became so extensive as to threaten her life. Therefore the thoracic cavity was aspirated and 1100 c.c. of foul pus were drawn off. No improvement followed and therefore, two days after an incision was made. About 500 c.c. of a chocolate-colored fluid was discharged. Then R. introduced his finger and opened a contiguous abscess of the lung that was of considerable size. A drainage tube was inserted and an irrigation with salicylic acid made. Rapid improvement followed. Twenty-four days after the drainage tube was removed; fever followed, and the rapidly closing external wound was enlarged. Again, the fever passed away. The fistula finally and permanently closed about a year after.

Dr. W. Koch, of Dorpat, reports, together with a resume of his former experience as laid down in the Archiv. f. Klin. Chir. XV, and the Berlin Klin. Wchnschr., XI, 1874, two operations performed at Leyden's clinic, at Berlin, upon patients that had putrid bronchitis, bronchiectasia and gangrene.

1. A male patient, 24 years of age, had trouble in the right lung. There were cavities in the lower lobe and catarrhal affection in the upper. . The sputa contained shreds of lung tissue, besides the characteristics of gangrene. The operation performed consisted in a resection of a piece of the sixth rib. The thermo-cautor opened a cavity as large as a child's fist situated perhaps an inch from the lung surface. No serious consequence ensued. The quantity of the expectoration was reduced from 400 to 120 c. c., per day. Four days after the attempt was made to open up the cavity that yielded this amount of sputa. A piece of the eighth rib was removed and by the thermo-cautor the lung was traversed to a depth of 14 cm. But no cavity was found. Twelve days thereafter an incision of the space between the eighth and ninth rib opened a gangrenous place. But no further relief was thereby afforded, probably on account of the existence of several cavities more.

2. A woman, 29 years of age, had a cavity of the right lower lobe and expectorated fetid sputa. The sixth rib was resected and the thermo-cauter ran into a cavity of the size of a fist; quite superficial exploration of the walls of this cavity by means of fine aspirating needles brought fetid fluid from a point back and upward of this cavity. The thermo-cauter was introduced in the direction of these exploring needles and a large cavity, that poured out about 1000 c. c. of stinking fluid, was opened. Three rubber tubes were put in as drains and thymol and acetate of alumina injected. The patient collapsed and died eight days after the operation. The expectoration had vanished and at the autopsy the eschara was shown to have healthy granulations underlying. The fatal termination was due to a phlegmonous inflammation of the porta hepatis, a lobular broncho-pneumonia of the left side, induced by a foreign body, and septicemia.

Koch makes the following important remarks on the indication and methods of thermo-cautery of the lung.

1. Thermo-cautery may be practiced in those forms of chronic gangrene that develop from bronchiectasia and are attended by profuse expectoration of stinking masses. If but one larger cavity is found it is sufficient to open it by a fistula carried through the healthy parenchyma; then drainage and irrigation should be practiced. In superficial cavities simple incision, or, tearing with a dressing forceps or the fingers and subsequent irrigation is called for. If several smaller bronchiectasias communicate it is proper to endeavor to make a single larger cavity by theromocauteric destruction of tissue.

2. In acute gangrene, in which, as for instance following gun-shot-wound, we have necrotic tissue that is not yet fully sequestrated and is surrounded by edematous, hepatised lung, it is necessary not only to establish a fistulous channel, but also to destroy by the thermo-cautor this necrotic and endangered tissue.

3. The perforation of the lung is indicated when foreign bodies become so located in the bronchi that there is no escape possible

and broncho-blennorrhœa and destruction ensues.

4. The galvano-caustic destruction of lung-tissue in those forms of fetid and putrid bronchitis in which we have no bronchiectasia is hardly justifiable.

5. In tuberculosis the method could be thought of only in those rare forms of distinctly localized tuberculosis of limited extent.

6. Aspiration should aid in forming the diagnosis; resection or excision of lung tissue is not practicable.

Dr. Carl Lauenstein (Chir. Centr. Bl. XI, 1884), drained the right apex of a sailor, 37 years old, who had bronchiectatic cavities. The condition of the patient did not improve after the use of Curschmann's mask with carbolic acid; therefore it was determined to give a direct vent to the large quantities of very offensive secretion. Thus, it was hoped, the constant danger of further infection might be obviated. An explorative puncture was made through the second intercostal space and a part of the second rib was excised. A trocar was then driven into the lung; no fluid discharged. The thermo-cautor failed to work and a dressing-forceps was pushed down the track the trocar made. A cavity was so opened, but no pus escaped. A drainage tube was inserted and irrigation with salicylic acid made. Following this the expectoration diminished and the dressings were found saturated with foul secretion.

The wound was insufflated with iodoform and boric acid; the secretion became less in quantity and offensiveness. After 1½ months the fistula closed. When discharged the patient was in good condition; the amphoric symptoms of the right apex were mended, also the catarrh of the rest of the lung. The patient did well all summer; in the fall he again sought the hospital and renewed infiltration extending to the axilla was found. The wound broke open soon thereafter and pus in copious quantity escaped. The result was rapid improvement. In March 1884, a year after the operation, the patient was doing finely. There was but slight expectoration and no offensive odor. The scar of the wound was firm and retracted. Anteriorly down to the third rib and posteriorly in the fossa supraspinata the percussion sound was resonant, in-and-expiratory murmur a little intensified.

L. calls attention to the circumstance that the laceration of the lung-tissue by the dull instrument was not followed by serious consequences. The pleuræ were adherent in the whole extent of the apex and a complete obliteration of a cavity under such circumstances not very probable. In the lower lobes the relations would seem to be more favorable.

Dr. W. Cayley (Brit. Med. Jour., May 31, 1884), cites a complete success in gangrene. A girl, 12 years of age, had otorrhœa since four years of age. There was necrosis of the mastoid process. After removal of dead bone there followed pyemia, pleuritis and gangrene at the base of the left lung.

A large trocar was introduced and a drainage tube inserted. Foul pus and necrotic lung was discharged. The child rapidly recovered, and was discharged in excellent health after about three months.

Dr. Cecil Bliss reported to the Medico-Chirurgical Society of London a case of abscess of right base of the lung. The patient was 32 years of age. Puncture and incision was performed. After two punctures Prof. Marshall opened the thorax by incision. By means of a trocar a deep abscess was opened and drained. Much pus escaped. After some improvement the patient died two weeks after, of abscess of the brain.

Dr. William Pepper's experiences in injection of cavities are of great interest. In a former article (Amer. Jour. of Med. Sc., 1874), he established the following tenets for such treatment:

1. Local treatment by means of injections is most suitable in those cases in which a single superficial defined non-tuberculous cavity exists. But even if the other tissue is somewhat affected good results may follow.

2. The benefit of such local treatment consists in an alteration of the character of the pathological process and a diminution of the purulent secretion; thereby the cough is lessened and finally a cicatrization and obliteration of such cavities may follow.

3. In all cases in which the injection was carried out, there were no dangerous symptoms from the procedure, and the general and local condition of the patient improved.

In the resume of the cases reported six years later, Pepper states that no permanent good result can be achieved in those cases attended by extensive disease of surrounding tissue or of the other lung. But the cough may be much eased and the odor of the expectoration improved.

The following are a few of his cases.

1. A male patient, 29 years of age, had a large cavity in the right apex; in the left apex there were rales. In the period of time from Febr. 24, 1874, to April 11, 1875, the cavity was injected 48 times, with 2–3 per cent. carbolic acid, or 3–25 per cent. Lugol's

solution. The patient improved in general health, and the cavity was reduced in size; cough and expectoration had almost entirely disappeared. Patient died in 1876. The autopsy showed that the right lung was much shrunken, to about one third its original size. Only a small cavity remained and that was bound up in a strong fibrous cicatrix. Liver and kidneys were in a state of amyloid degeneration.

2. A male, 27 years old, had a cavity of the right apex; the left lung seemed healthy. There were made about 25 injections of 14-20 per cent. Lugol's Solution. Cough and expectoration mended. The cavity became much smaller. In the fall of the following year the patient died of purpura, diarrhœa and alterations near the base of the right lung. Acute tuberculosis was the cause of death.

The post-mortem showed the right lung shrunken to one half its size. Only a small cavity in a dense cicatrix remained. There was a small cavity in the base of the right lung. In the left lung there were scattered tubercles and recent pleuro-pneumonia of the left base. Before the purpura and diarrhœa developed matters were going well and the gradual obliteration of the cavity was manifest.

3. A patient had a superficial cavity in the right apex together with a few smaller ones immediately next to it. The condition of the patient was bad; thirty injections of 10-20 per cent. Lugol's solution were made in about seven months. The patient improved gradually. The right thorax became retracted, the heart was drawn over to the right. The cavity grew smaller. The patient thereupon went to Texas and died two years later of dysentery. The autopsy showed cicatrcial shrinkage of the lung and almost complete obliterations of the cavity. There were no signs whatever of recent mischief.

CORRESPONDENCE.

OPIUM POISONING.

NASHVILLE, TENN, Aug., 1884.

To the Editors of the Review: The discussion on the treatment of opium poisoning in the St. Louis Medical Society, as reported in the number of the REVIEW of August 16, reminds me of a case I saw last year. I am surprised that no one spoke of the hypodermic use of ammonia as it is a means of undoubted value, as this case will illustrate. Dr. Hughes and Dr. Atwood testify to the value of ammonia per enema, but that is not as sure and effective as its hypodermic use. The case I refer to was a healthy well developed young woman, who had seen her lover at church, with another girl, and so determined to seek peace by going over to the great majority on the side of the river where fickle lovers are unknown. She passed a restless night and after a scanty breakfast visited a drug store and purchased a four ounce glass syringe, with a long sharp point, eight ounces of laudanum and four ounces of chloroform. She retired to her room, bathed, dressed her hair, painted and powdered her face, put on her night gown, swallowed about two or three ounces of the laudanum, injected a syringeful into the vagina and plugged the orifice with a lace handkerchief. She read the heartless villain's letters until she became stupefied by the opium and then placed a hat-box over her face, so arranged that the uncorked chloroform bottle under it would not fall over. She was discovered in this position about noon and I was hastily summoned and found her deeply comatose, the respiration not being over five per minute.

It was too late to derive much benefit from attempting to produce emesis or use of the stomach pump; so the hypodermic use of atropia was resorted to and the usual routine of trying to arouse the patient. Owing to the difficulty in getting her to swallow I ordered a large enema of hot coffee. The nurse gave me a queer look and asked me to examine the patient, directing my hand to the vulva. The handkerchief was thus discovered. It was found that the hymen was intact, with an unusually small orifice, and the vagina was found to still contain some of the tincture. The point of the syringe had evidently been passed carefully through the orifice and the four ounces being injected the handkerchief was applied to plug up the opening; but most of it had escaped, as shown by the bed and handkerchief. The atropia and coffee not holding out much hope of recovery, a battery was used but with only temporary benefit, so I concluded to resort to ammonia, as I had with good results in two other cases.

A drachm of the aromatic spirits was injected into the cellular tissue of the hip and in less than a minute she gave a deep sigh and turned over in bed the respiration going up from from 5 to 9. In half an hour it began to decline again, so the operation was repeated; before the needle was fairly out she sat up in bed and looked around for a moment, placed her hand at the site of the injection and lay down again. The respiration was maintained above 12 from that time on, and coffee could now be given in large quantity. In a few hours she was out of danger. The first injection caused a painful lump which disappeared in a few days, the second caused an indolent abscess which gave some trouble.

The recreant lover returned to his allegiance with a vengeance, I suppose, as I saw her in a drug store, some weeks afterward, purchasing a flat surgical sponge, some sulphate of zinc and a large size female syringe, the point of which would not have passed at the time of the examination. Let us hope that laudanum will no longer be needed, locally, to assuage the pangs of disappointment. Yours truly, C. C. FITE, M. D.

A PHANTOM TUMOR.

MOORESVILLE, MO., Aug. 1884.

Editors Review: A peculiar as well as interesting case has been under my observation for the last few years.

The history of the case is about as follows: Patient, a female nearly 61 years of age, has been an invalid for about eight years. First, she had some mental trouble, and was treated for insanity, form unknown to me, with partial recovery. Although she always argued she had lost her will-power, she was comparatively healthy. She was the mother of seven children. Up to about six years ago she was poor and emaciated. About that time her abdomen began to swell, as she expressed it. Several eminent physicians were consulted. Each one had the same opinion, that is, that it was some abdominal growth.

About four years ago I first saw and examined the patient. Diagnosis: "Ovarian tumor of probably malignant character."

Since 1880 I saw the patient every few days and have had with me, on visiting her, some of our best physicians and surgeons.

None, that expressed themselves, were of a different opinion than that there was an abdominal growth.

On Aug. 14, four hours after death, an autopsy was held by Drs. Cloud and Gordan, of Chillicothe; Drs. Bottom and Donaldson, Breckenridge; Dr. Fiske and myself, of Mooresville. All the abdominal organs were in a healthy condition, viz., uterus, ovaries, kidneys, liver, etc. Nothing unusual could be detected except a vast amount of fat. All the abdominal muscles had turned to fat. A large amount of fat had accumulated in right lumbar and iliac region. This was caused by her lying on her right side. This accumulation of fat, together with bowels being distended with gas, during life led to the supposition that there was an abdominal growth. Death was caused by fatty degeneration of the heart, as that organ had nearly all turned to fat.

Thinking you might collect a few points of interest to the many readers of the REVIEW I send this for publication, if you desire. Respectfully,

W. H. GREEN, M. D.

FOREIGN CORRESPONDENCE.

LETTER FROM DR. ENGELMANN.

COPENHAGEN, Sunday, Aug. 17, '84.

Editor Medical Review:—To-day we return to the realities of every day life; the past week was one delightful dream—a series of intellectual treats intermingled with fairy scenes. The card of membership of the congress was a pass which took us everywhere, which opened all doors, even to royalty itself. I carried this card with me most religiously day and night, and as I now look at it I can hardly realize that this once almost magic wand does not continue to reveal fresh wonders. It is difficult to realize that it is but a very ordinary bit of simple paste-board, which serves us no more and has become entirely superfluous—but so it is.

The Eighth International Congress has closed! It opened on Sunday, Aug. 10, at 1 P. M., in the Palais de l'Industrie in the presence of the kings of Denmark and Greece, with an address by the president, Prof. Panum, of Copenhagen, who was followed by Sir James Paget, Virchow and Pasteur, and closed, after a week of active scientific work, varied with most delightful social intercourse and pleasing entertainments, by a magnificent supper and ball on the evening of Saturday, August 16, which afforded an opportunity for a parting word with the many eminent colleagues who are now on the way to their distant homes—as well as our courteous and hospitable Danish hosts and their charming ladies.

The General Session closed on Saturday afternoon with an acceptance of the invitation extended by the American Medical Association through our committee and presented by Dr. Billings in the following terms:

"In behalf of the Medical Profession of the United States, we, the undersigned members of a Committee appointed for that purpose by the American Medical Association, have the honor to offer the International Medical Congress an invitation to hold its next meeting in the city of Washington in September, 1887.

Austin Flint, Lewis A. Sayre, F. M. Browne, George J. Engelmann, John S. Billings, Christopher Johnson.

This fixes upon the city of Washington as the seat of the next Congress and thus tasks the profession of the United States and the national capital with a most honorable, but onerous and difficult duty; for it will be difficult to equal the hospitality of Copenhagen and the social and scientific arrangements for the profit, the comfort and pleasure of the visiting physicians, which have been so perfect in all their details.

This Congress has proven exceptionally successful. Copenhagen had not dared hope to rival London, and owing to the modest expectations of the Danish physicians, preparations were somewhat insufficient and unsatisfactory to some on the first day; but this was rapidly remedied when an estimate of the numbers could be made; moreover, the fault is not with the committees, but with the visiting physicians, who failed to send notice of their coming as they had been requested to do.

On the day of opening of the Congress 1700 delegates had been inscribed and with every day the numbers increased; from 1,200 to 1,500 foreign delegates were in attendance among 1,800—2,000 whilst in the great city of London there were not over 8—900, and the balance of the 3,000 members was made up of English physicians.

The entire arrangement was most systematic and complete. This Eighth International Congress opened with a general session, in the presence of the royal protector, the King of Denmark. Then followed a week of scientific work well mapped out and varied, so as not to become burdensome. Active work began on Monday, Aug. 11; the meeting of the sections, of which there were fourteen, taking place from 10 A. M. to 12, and from 1 to 3 P. M. During the recess of one hour from 12 M., we adjourned to lunch, which was enjoyed in tents prepared for the purpose upon a pretty lawn.

At 3:30 P. M. the various sections joined in general session in the University building to listen to addresses of general interest by men such as Panum, Pasteur, Virchow and the many other heroes of science who had assembled; 5 o'clock was the hour of adjournment and at 6 o'clock we again gathered at the festive board, as most every member was invited each day to dinner, private or general.

Let us briefly consider the scientific work; the very organization must vouch for the result and a glance at the brilliant names which head the list will satisfy even the most fastidious.

The following are the officers of this Congress:

Congrès Périodique International des Sciences Médicales. 8me Session 1884. Copenhague.

Présidents et Secrétaires du Congrès.

Président: Panum.

Viceprésidents scandinaves: A. Key, Dahl, Hjelt.

Présidents honoraires:

de l'Angeterre: Sir J. Paget, Sir W. Gull, Sir W. Mac-Cormac, Sir H. Acland, Sir R. Bennet, Sir J. Lister, Spencer Wells, Erichsen, Watson, Marshall.

de l'Amerique: Billings, Flint.

de la France: Pasteur, Verneuil, Chauveau. Ollier, Jaccoud, Hardy, Ranvier, Cornil, Trélat, Lépine, Bouchard.

de l'Allemagne: Virchow, Kolliker, Frerichs, Volkmann, Esmarch, His, Hensen, Flemming, Hensch, Munk, Liebreich, Liebermeister, Gurlt.

de l'Autriche: Schnitzler.

de la Hollande: Tilanus, Rosenstein, Engelmann.

de la Russie, Reyber, Rauchfuss.

de l'Italie: Crudeli, Bottini.

de la Belgique: Crocq.

de la Suisse: Lombard, Prévost, Meyer, Kollmann.

Secrétaire général: C. Lange.

Secrétaires: Kronecker, Petit, Owen, Poore, Bloch, Moller, Salomonsen.

Too brief a space of time intervenes between the meetings to admit of much that is strikingly new being presented. Nothing remarkable was offered to any of the sections; perhaps Pasteur's experiments with regard to vaccination as a preventative against rabies, were the most novel. The most important feature was the friendly meeting of adherents of the most varied theories and the discussion of questions which have caused much bitter strife. By personal contact many a rough edge is smoothed off, and hard feeling dispelled, as a satisfactory understanding is by far more readily accomplished in this way than by published papers.

It was most instructive to hear the latest of the many grand achievements of modern medicine advocated and defended by those grand leaders to whom we owe such progressive steps. Though nothing positively new was brought before the Congress each of the many workers, who had come from distant lands, brought his mite—and in each section the great leaders were present to advocate and explain the direction in which they have guided their science.

I can speak only of the section on gynecology and obstetrics, which will probably afford a fair sample of the work done in the thirteen other sections. The presiding officers are leading Danish specialists. So the chairman of the subsection on gynecology is the greatest of Danish ovariotomists, Prof. Howitz, of Copenhagen, whilst Stadfeldt led the subsection on obstetrics. The honorary presidents are chosen from the great nations represented; so also the secretaries. Yet the Danish secretary has the burden of arrangement and work, and the success of our section is in a great measure due to the thoughtfulness, the exertion and the indefatigable attention of our secretary, Dr. Leopold Meyer, of Copenhagen.

VI. Section de Gynécologie et d'Obstetrique.

Président: Howitz (sub-section de Gynécologie), Stadfeldt (sub-section d'Obstetrique).

Présidents honoraires: Breisky, Prag. Etlinger, St. Petersbourg. Engelmann, St. Louis. Gusserow, Berlin. Prof. Halberstma, Utrecht. Hegar, Freiburg i B. Koeberlé, Straszbourg. Lazarewitch, Karkoff. P. Muller, Bern. Olshausen, Halle. Pippingskjold, Helsingfors. Priestly, London. Simpson, Edinburgh. Miltiade Venisélo, Athènes. Vincent, Lyon.

Secrétaires: Paul Bar, Paris. Nelson, Boston. Wiedow, Freiburg, i B. Leopold Meyer, Copenhague.

The programme for the work of the following day was made out on the preceding evening, and furnished each member as he entered the meeting room in the morning.

The papers read before this section are probably characteristic of those presented to the sister sections, for instance: Oophorectomy as a remedy against Nervous and Mental Diseases, by Hegar; Treatment of Myomata Uteri by Laparotomy, by Koeberlé; The Significance of Albuminuria in Pregnant Women, by Halberstma; Cesarian Section and Its Modification, by Muller, of Berne, (known through his modification of the Porro operation); Treatment of the Third Stage of Labor, Stadfeldt; On the Early Performance of Ovariotomy, a most able argument in its favor by that eminent operator Knowsley Thornton, which pleased me much especially as I have for several years most earnestly urged the early performance of ovariotomy as the only possible way of improving the unfavorable status of the operation in our Mississippi Valley. The Value of Intermittent Contractions of the Uterus in the Diagnosis of Early Pregnancy, by Braxton Hicks; Some Diagnostic Difficulties Caused by Hypertrophy of the Cervix Uteri, by Howitz; The Diagnosis of Diseases of the Tubes, by Martin.

The American representation was rather slender. The only papers brought before this section by our countrymen being by Gordon of Portland, Marcy, of Boston and your humble servant.

The discussions were free and entered upon with much spirit by such men as Sir Spencer Wells, Priestly, Simpson, Hegar, Gusserow, Martin, Muller, Koeberlé, Breisky and the minor stars present.

The most popular of all the great scientists present was unquestionably Pasteur, who was received with storms of applause whenever he appeared. Next to him Sir James Paget and Virchow attracted the eyes of the Congress and the eyes of the people. The tall form and kindly face of Sir William MacCormack will be recalled with pleasure by St. Louisians.

With regard to the festivities, I must say a word, as they were so thoughtfully arranged, appropriate and perfect, without jostling or crowding, though from 1,200 to 3,000 participated.

Saturday evening, Aug. 9, a preliminary reception, to those already come, in the charming garden of the Tivoli; Sunday evening, the Presidential Dinner, given by the President, Prof. Panum, to the former presidents of the Congress, and the presidents of the sections. Some three hundred participated in this magnificent dinner, attended by the most illustrious guests, a magnificent array of men, dazzling to the American eye, by the brilliant display of glittering decorations.

Monday came the dinners given to the gynecological section, as well as several others. This

evening was intended for section dinners while Tuesday was reserved foi private hospitality, and most enjoyably spent by myself in the midst of a circle of gynecologists at the table of that eminent obstetrician, Prof. Stadfeldt.

Wednesday came the delightful excursion upon five large steamers to Helsingor and the castle of Kronborg, upon whose ramparts paced Hamlet's ghost, and near which is his tomb.

The ladies joined us in the excursion which left Copenhagen, at 10 A. M., returning, by rail, at 7 P. M., tired, but satisfied that the day had been spent most profitably. Though over 2,000 participated there was no discomfort, no crowding upon boats or railroad. or at the lunch tables, which were spread in the halls of the magnificent old castle, enough for all!

Thursday evening came the dinner given by the city of Copenhagen, in a building erected for the purpose, at which over 1,200 participated; it was as perfect, served as elegantly, and passed off as smoothly as if it had been a little affair for half a dozen! All due to the perfect arrangements which had prepared for every detail and every possible emergency.

At 5 P. M. we were seated, and a jollier crowd never left a banquet hall than these 1.200 physicians when they embarked at 7 o'clock upon the boats, flying all their bunting, which lay waiting for us, at the very door of the hall. Amid the enthusiastic cheers of the people, who lined the dock and bridges in crowds, we steamed to Tivoli, where the ladies had assembled, and with them over 20,000 people who crowded to this popular resort to enjoy the fireworks and see the foreign physicians. Headed by a band of music we marched to, and into the wonderfully illuminated gardens of Tivoli, an immense tract of ground with all possible amusements, theatre, concert, shooting galleries, boats, slides, etc. etc. Some found their ladies, some did not. A magnificent display of fireworks at 11, was the last the tired doctor was willing to stop for.

On Friday evening, at 9, came off the reception given by the king at the royal palace in a magnificent suit of apartments, brilliantly illuminated. We conversed until the royal party had passed through the waiting masses and led the way into another suit of rooms graced with elegantly spread tables. The most delicious lunch was thoroughly enjoyed and the champagne was felt sufficiently to bring about a very sociable spirit which was made evident by the prolonged cheers which greeted the remarks of the king, made in English, and the loud buzzing of conversation which followed.

As I have already stated, this week of science and pleasure closed with a supper and brilliant ball on Saturday night, Aug. 16.

A striking feature throughout was the intense and kindly interest evinced by the people of Copenhagen; the crowds which assembled whenever they could have even a glimpse of the visiting physicians, were most orderly, standing for hours most patiently and quietly, making way most readily for a doctor to pass.

It was remarked by all that no other people could equal the Danes in their gentle politeness.

The same is true of the Danish members, who yielded everywhere to their visitors and sought to serve them. Papers were read by few of the Danes, to allow time and space for their guests: and in all crowds the most venerable of our hosts could be seen passing about requesting the Danes to give way and make room for the visitors. "If there is a Dane here, let him step back," I often heard from these Nestors of the profession of Denmark.

Let us Americans remember this in 1887. Our country has certainly been honored by the cordial acceptance of the invitation which was extended by the committee of the American Medical Association, in behalf of the physicians of the United States, to hold the next meeting of the International Congress in the capital of the Union, but we must not forget that, at the same time we have assumed a tremendous responsibility, which we must take hold of betimes if we wish to cope with it successfully, if we wish to uphold the justly world-wide reputation of American hospitality.

Let us begin our preparation early, let our state societies, as well as the representative special societies of the country prepare to carry out such duties as may be imposed upon them by the Central Committee, and above all let us remember that we will then be "mine host," that we must for once yield to others, to those members who leave their distant homes and cross the stormy Atlantic to grasp us by the hand. They shall experience the far-famed hospitality of our people, they must be given the first place in scientific debate as well as at the festive board.

Let all our efforts be guided by the same system which has enabled the profession of this little kingdom of Denmark to make the Congress of Copenhagen so successful as a social and a scientific gathering so that we may look back with equal pride to the Ninth International Congress of Medical Science which is to meet in the city of Washington in September, 1887.

G. J. E.

ITEMS.

Dr. Geo. J. Engelmann, of St. Louis, sails from Antwerp, on Sept. 6, on the "Rhyneland." He will attend the Convention of the American Gynecological Society.

John S. Moore, M. D, Emeritus Professor of the Principles of Medicine and Hygiene at the Missouri Medical College. has accepted the chair of Clinical Medicine at the College of Physicians and Surgeons.

And now both Spain and Italy have Cholera. Great alarm prevails at Rome and Naples.

Cohnheim is seriously ill with Bright's disease.

The charge for cremation in Milan is said to be ten dollars; in Boston twelve dollars.

Dr. E. L. Freer, of Birmingham, England, claims to have applied nearly 3,000 plaster-of-Paris jackets during the last seven years.

Dr. Sutton, of Pittsburg, performed enterotomy successfully on a wealthy man's wife and charged for the operation and attendance, twenty-two days, one thousand dollars; the magnanimous jury allowed him three hundred and thirty dollars. Perhads the wealthy man wanted his wife to die.

THE COMPATIBILITY OF SULPHATE OF QUINNE WITH IODIDE OF POTASSIUM.—Dr. R. J. Hamill, writing to the Brit. Med. Journ., points

out that these two important drugs can be neatly and efficiently combined in the same mixture by taking advantage of the solubility of the sulphate of quinine in glycerine. During the last few years he has often prescribed this combination, and has never yet heard of any unpleasant symptoms resulting from its use.

During the late epidemic of cholera at Cairo it was treated successfully by giving corrosive sublimate in doses of from 1-12th to 1-8th of a grain, frequently repeated until the symptoms subsided, then gradually leaving off the remedy.

A liniment made of equal parts of oil of wintergreen and olive oil or soap liniment is said to afford almost immediate relief from pain in acute rheumatism.

Amyl Nitrite.—In the second number of the Asclepiad, Dr. Richardson gives a formula for the administration of amyl nitrite by the mouth: Amyl nitrite, pure, min. xxxvi.; ethylic alcohol (sp. gr. 830). dr. vi.; pure glycerine to one and a half ounces. To make a mixture of twelve doses. One fluid drachm to be taken in a wineglassful of warm water. In asthma this method is specially recommended.

A Stuffing for Coffins.—To prevent rapid decomposition of corpses the Deutsche Medicinische Zeitung, (Pharmaceutische Centralhalle), July 17, 1884, suggests washing them with a 1-per cent solution of corrosive sublimate. and fitting up the interior of the coffins with wood-wool saturated with the same preparation.

Iodoform Antidote.—As an antidote to iodoform the Leitméritzer Rundschau recommends a 5 or 10 per cent aqueous solution of bicarbonate of potash.

The Eighth Annual Session of the American Dermatological Association was called to order at West Point, Aug. 26, by the President, Dr. R. W. Taylor, of New York. After an interesting address from Dr. Taylor, the reading and discussion of papers was declared in order. The Association continued in session for three days, and then adjourned to meet at Greenwich, on Long Island Sound, the last days in August, 1885.

The following is a list of the papers presented:

1. A Clinical Contribution to the Study of Lupus Erythematom of the Hand by Dr. J. N. Hyde, of Chicago.
2. Case of General Idiopathic Atrophy of the Skin, by Dr. W. A. Hardaway, of St. Louis.
3. Treatment of Acne and Acne Rosacea in the Male, by Dr. S. Sherwell, of Brooklyn.
4. Case of Unilateral Chromidrosis, by Dr. J. C. White, of Boston.
5. Case of Late Cutaneous Syphilis Illustrating Merits of Large Doses of Potassium Iodide, by Dr. H. W. Stelwagen, of Philadelphia.
6. Dermatitis Herpetiformis, by Dr. L. A. Duhring, of Philadelphia.
7. Case of Xanthoma Multiplex, by Dr. W. A. Hardaway, of St. Louis.
8. Case of Vitiligo Involving the Whole Surface, by H. W. Stelwagen, of Philadelphia.
9. Cases of Arsenical Dermatitis, by Dr. J. C. White, of Boston.
10. On Miliaria and Sudamina, by Dr. A. R. Robinson, of New York.
11. On a Peculiar and Scaling Affection of the Glans and Prepuce, by Dr. R. W. Taylor, of New York.

Other papers were announced in the printed programme, but owing to the absence of the authors were not read.

The following officers were elected for the year 1885: President: Dr. W. A. Hardaway, of St. Louis; Vice Presidents: Dr. J. E. Graham, of Toronto, and Dr. A. Van Harlingen, of Philadelphia; Secretary: Dr. W. T. Alexander, of New York; Treasurer: Geo. H. Rohé, of Baltimore.

Remedies for Gonorrhœa.—No. 1.—R. Liq. ferri. subsulphatis, gtt. xv.; aquæ font q. s., four ounces. No. 2.—R. Hydrastin muriatis, one scruple; glycerinæ puræ one-half fluid ounce; aquæ font q. s. four ounces. Directions.—Wash out urethra well with warm water, then inject formula No. 1. Six hours after use No. 2 by injection. Four days is all I ask for cure. This treatment has never failed where I have given it.—Therap. Gaz.

The sulpho-carbolate of sodium, in thirty-grain doses given after meals, is recommended in flatulent dyspepsia. Also in ten-grain doses for nausea and vomiting, particularly in pregnancy.

Prof. Gross never operated on menstruating women, if it as possible to avoid it. Oozing is apt to occur from the wound.

The general relation between female and male births is 100 females to 106 males. Illegitimacy slightly lessens this proportion—that is, increases the number of females born.

DEATHS IN ST. LOUIS FOR THE WEEK ENDING AUGUST 30, 1884.

Small-pox		Convulsions and trismus	[illegible]
Measles		Heat stroke	
Searlatina	5	Apoplexy	2
Diphtheria	1	Other diseases of the brain and nervous system	5
Membranous croup		Cirrhosis of liver and hepatitis	5
Whooping cough		Enteritis, gastro-enteritis, peritonitis and gastritis	7
Typhoid fever	4	Bright's disease and nephritis	
Cerebro-spinal fever		Other diseases urinary organs	
Remittent, Intermittent, Typho-malarial, congestive and simple continued fevers	4	Diseases generative organs	1
Puerperal fever		Diseases of the locomotory organs	
Diarrhœl Diseases.		Diseases of the integument	2
Under 5 years	14	Accidents of pregnancy and childbirth	
Other ages	4	Congenital debility, malformation, etc	7
Erysipelas		Senility	2
Pyæmia and Septicæmia.		Surgical operations	1
Syphilis	1	Deaths by suicide	1
Inanition, want of breast milk, etc	5	Deaths by homicide	2
Alcoholism		Deaths by accident	8
Other zymotic diseases		Execution by warrant of law	
Rheumatism and gout	1	Unknown	
Cancer and malignant tumor	6	*Total Deaths from all Causes*	136
Phthisis and tuberculosis Pulmon	18	*Total zymotic Diseases*	38
Marasmus—Tabes mesenterica and scrofula	10	*Total Consitutional Diseases*	37
Hydrocephalus, tubercular meningitis, etc	2	*Total Local Diseases*	40
Other constitutional diseases		*Total Developmental Diseases*	9
Bronchitis	1	*Deaths by Violence*	12
Pneumonia	1	*Unknown*	
Other diseases respiratory organs	4		
Diseases of the circulatory system	3		
Meningitis and encephalitis	1		

Gib. W. Carson, M. D.,
Clerk of Health Commissioner and Board of Health.

THE WEEKLY MEDICAL REVIEW.

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ABDOMINAL SECTION IN CENTRAL AFRICA.—Verily, let the proud spirit of antiseptic surgery bow in humility at the following recital!

If true,it is a commentary on our boasted civilization and progress! Simple measures like those adopted in that rude African hut would bring down the condemnation of the scientific world and an action for malpractice upon the "fool-hardy" surgeon. In our cultured homes we are surrounded by many dangers, no doubt, that should be guarded against; but to great nicety and attention to minor details should not be given credit entirely for modern successes. We can afford to be simple and unpretentious in our measures; all that need be accomplished is cleanliness and occlusion. Still we can hardly recommend the sang froid of our African colleague. The dilatation of the cervix from within outward is a point worthy of notice. Bark-cloth and root-pulp may soon become marketable with us.

In the Edinburgh Medical Journal for April Mr. Robert W. Felkin gives an interesting account of a successful Cæsarean section performed in his presence by a native African. The patient was a healthy-looking young woman, about 20 years of age. This was her first pregnancy. Mr. Felkin entered the hut just as the operation was about to begin. The woman lay upon an inclined bed, the head of which was placed against the side of the hut. She was liberally supplied with banana wine, and was in a state of semi-intoxication. She was perfectly naked. A band of mbugu, or bark-cloth, fastened her thorax to the bed; another band of cloth fastened down her thighs, and a man held her ankles. Another man standing on her right side steadied her abdomen. The operator stood at first on her left side, holding his knife aloft with his right hand, and muttering an incantation. This being done, he washed his hands and the patient's abdomen first with banana wine, and then with water. Then, having uttered a shrill cry, which was taken up by a small crowd assembled outside the hut, he made a rapid cut in the middle line, commencing a little above the pubes, and ending just below the umbilicus. The whole abdominal wall and part of the uterine wall were severed by this incision, and the liquor amnii escaped. A few bleeding points in the abdominal wall were touched by a red-hot iron by an assistant. The operator next rapidly finished the incision in the uterine wall; his assistant held the abdominal walls apart with both hands; and as soon as the uterine wall was divided he hooked it up with two fingers. The child was rapidly removed, and given to another assistant, after the cord had been cut; and then the operator dropped his knife, seized the contracting uterus with both hands, and gave it a squeeze or two. He next put his right hand into the uterine cavity through the incision, and, with two or three fingers, dilated the cervix uteri from within outwards. He then cleared the uterus of clots and the placenta, which had by this time become detached, removing it through the abdominal wound. His assistant endeavored,but not very successfully, to prevent the escape of the intestines through the wound. The red-hot iron was then used to check some further hemorrhage from the abdominal wound, but it was very sparingly applied. All this time the chief "surgeon" was keeping up firm pressure on the uterus, which he continued to do till it was firmly contracted. No sutures were put in the uterine wall. The assistant who had held the abdominal walls, now slipped his hands to each extremity of the wound; and a porous grass mat was placed over the wound and secured there. The bands

which fastened the woman down were cut,and she was gently turned to the edge of the bed, and then over into the arms of the assistants, so that the fluid in the abdominal cavity could drain away on to the floor. She was then replaced in her former position; and, the mat having been removed, the edges of the wound—i. e., the peritoneum—were brought into close apposition; seven thin iron spikes, well polished, like acupressure-needles, being used for the purpose, and fastened by string made from bark-cloth. A paste prepared by chewing two different roots and spitting the pulp into a bowl, was then thickly plastered over the wound; a banana leaf warmed over the fire was placed on the top of that; and, finally, a firm bandage of mbugu cloth completed the operation. Until the pins were placed in position the patient had uttered no cry; and an hour after the operation she appeared to be quite comfortable. Her temperature, as far as Mr. Felkin knows, never rose above 99.6° Fahr., except on the second night after the operation, when it was 101°, the pulse being 108. The child was placed to the breast two hours after the operation, but for ten days the woman had a very scanty supply of milk, and the child was mostly suckled by a friend. The wound was dressed on the third morning and one pin removed; three more were removed on the fifth day,and the rest on the sixth. At each dressing fresh pulp was applied, and a little pus which had formed was removed by a sponge formed of pulp. A firm bandage was applied after each dressing. Eleven days after the operation the wound was entirely healed, and the woman seemed quite comfortable. The uterine discharge was healthy. The child had a slight wound on the right shoulder; this was dressed with pulp, and healed in four days. The scene of this operation was Kahura, in the Uganda country.

Changes of Hæmoglobin.—The Brit. Med. Jour. reports that M. Hayem, in a memoir on substances which change hæmoglobin, and especially those which convert it into methæmoglobin, arrives at the following conclusions. Hæmoglobin, which gives the blood its characteristic redness, preserves its respiratory capacity, or in other words, its property of absorbing oxygen, so long as it is not chemically changed. The most complete chemical change it can undergo, is conversion into methæmoglobin. This substance is of a brownish color. When shaken in contact with the air, it does not absorb oxygen. Potassium-ferrocyanide and potassium-chloride both convert hæmoglobin into methæmoglobin; these substances have been used for many years therapeutically; recently nitrite of amyl and nitrite of soda, which have also this property, have been employed. M. Hayem proposed to ascertain how it is that considerable doses of these medicines can be administered without leading to a change in the hæmoglobin; also, when it does undergo an alteration, and death does not result, by what process the blood is freed from the methæmoglobin. Although hæmoglobin dissolved or rendered soluble by the coagulation of blood has the same respiratory capacity as the hæmoglobin of blood corpuscles, there is an important difference in behavior between these two varieties, in presence of the substances which provoke the formation of methæmoglobin. The hæmoglobin of red blood-corpuscles is indifferent to the action of those substances which convert dissolved hæmoglobin into methæmoglob- Submitted to the influence of nitrite of amyl vapour, the hæmoglobin of blood corpuscles is rapidly converted into methæmoglobin which reabsorbs oxygen; whereas dissolved hæmoglobin, converted into methæmoglobin, is permanent, and persists until the blood putrefies.

Koch's Career.—A correspondent of the Medical World recently attempted to cast a slur on the good fame of Dr. Koch by setting forth that he was nothing but a theorizer who had no practical experience in medicine. We fail to see why, even if he had never felt a pulse, looked at a tongue or prescribed a "liver regulator" in actual practice, his labors should not be valuable and correct in their results. As a matter of fact Dr. Koch has

experienced the hardships of professional life and his fame is all the more brilliant because he rose from the humble ranks of a country practitioner to that of the first mycologist, Pasteur, perhaps, excepted, in the world of science. Gaillard's Journal contains the following interesting sketch of the life of Robert Koch, the discoverer of the cholera germ, the man whose name is at present in everybody's mouth, taken from a recent number of the Gartenlaube. Dr. Koch, who is now 41 years old, is a native of the Hartz Mountain. In 1866 he took his M. D. degree. For the next six years he slowly and laboriously worked his way upward as assistant physician in out-of-the-way hospitals. Fortune did not smooth his road, and when in 1872 he got an appointment at Wollstein the struggle for existence had again to be fought for seven years. Under circumstances so unfavorable for scientific research he prosecuted his studies with a success which secured a world-wide recognition of his genius. His first distinction was won by the publication of the results of his quiet labor on the methods of the artificial dyeing of microscopic objects, especially of bacteria. By the general public his discovery could not be appreciated, but those who understood the value of these researches in the prosecution of the study of bacteria knew that with it a new era had dawned for science. This conviction has been brilliantly confirmed. During the last five years he has succeeded in identifying the germs of cattle disease, of consumption, and of cholera. These discoveries are not incidental strokes of good luck, but the natural fruits of his own system of research. The significance of these discoveries is felt even by those who have no knowledge of medicine. Experiments in vaccination with the poisonous matter, experiments in disinfection in laboratories, wholesale experiments in the disappearance of epidemics —all these are but links in the chain, the last link of which, the destruction of the germ of the disease, is no more unattainable, but has become even probable. Honors have been conferred on Dr. Koch and his colleagues on coming home from India, the breeding-place of cholera. They have received titles and orders, to which, in honor of the personal danger of the voyage of discovery, were added such distinctions as otherwise are only conferred on soldiers. By addresses and banquets colleagues have honored them, and it is said that the new Professorship of Hygiene, at Berlin, will be given to Dr. Koch. In short, outward acknowledgments have been plentifully made to the modest, quiet scholar. Although the Germans call him theirs with pride, he will always remain what he is, universal, and he deserves to the full the honorable title of "benefactor of humanity."

Mercury in Diphtheria.—Mercury in various forms has been frequently advocated in diphtheria, and if we take any one remedy there is, perhaps, not one which promises better results. The mild chloride was greatly lauded for this purpose several years ago, but as the antiseptic idea holds such sway the bichloride is a good deal more in "fashion" just now and perhaps equally efficient. The Medical News thus quotes Dr. Lynn:

The drug which seems to promise the best results, considered both theoretically and experimentally, is the corrosive sublimate. The conclusions of Dr. Lynn are that to use the remedy as a specific, 1st: It must be given in the first stage of the disease; 2nd: It must be given in large doses, frequently repeated. It is claimed for it that, used in this way, it mitigates the severity of all the general symptoms, "prevents the generation of the poison in the membrane, in mild cases checks the formation of the membrane at once, and causes what is formed to speedily disappear." It is best given in solution, and the vehicle preferred is the elixir of bismuth and pepsin. The dose recommended is, for a child three years old, gr. 1-16, or, in a malignant case, gr. 1-8, in a teaspoonful of the elixir every three hours; for an adult from gr. 1-12 to gr. 1-8 every three hours. "It rarely disturbs the stomach, and soon allays existing nausea." It is advised that, if the case be far advanced

before being seen, brandy and iron be added to the treatment.

Items of Practical Import about Cholera.—Dr. M. A. Schultz in the Medical Bulletin thus expresses himself on the spread of cholera:

There seems to be no doubt that the contagion or infection exists in the dejecta, and from the effluvium of the dead bodies. The late Dr. Henry Schultz, of Cincinnati, Ohio, had great experience and success during the epidemics of '32 and '49. He was well satisfied that the most virulent form of the poison existed after death. He particularly noticed that if the first case in a house was saved, the balance of the inmates escaped, while if one death occurred several others in the same house or neighborhood were attacked in quick succession, and the disease became more unmanageable. Another marked feature was the sudden spreading and increased fatality after the washing of bedding and clothing of those who had died, more especially when such articles had been left several days. I knew one woman in Cincinnati who died in ten hours after renovating a mattress upon which her servant had died. Another instance that I particularly remember, was where, for weeks, there had been an occasional (though not fatal) case of cholera in a large boarding house, when two of the boarders, residents of Columbus, Ohio, were attacked and died within a few hours of each other. The remains were sent to Columbus for interment. The landlady's daughter washed and packed their clothing, and died on the following day. During the next week eighteen deaths occurred in that house, and the disease raged fearfully throughout the neighborhood. After the remains and baggage of the two men reached Columbus, cholera broke out and spread desolation through the vicinity of their homes, while previously there had not been a case!

In my own personal experience something very remarkable occurred. For two months I had spent most of my time with the sick and dying, frequently preparing the dead for burial, without experiencing the slightest indisposition. I was suddenly seized with a profuse hemorrhage from the bowels, which lasted about three hours, unattended with pain or any unpleasant symptom, except a sinking sensation in the stomach. I was extremely prostrated, and kept my bed ten days. I was treated with cholera remedies. This occurred immediately after I had assisted in removing bed-clothing upon which a poor German had died.

Devotion to Science. Communication of Syphilis through Vaccine Lymph. Excision Futile.—Dr. Cory, of London, has certainly displayed a zeal for demonstration which few of us would be prepared to imitate. Fortunately we do not deem the zeal displayed worthy of imitation. To demonstrate the possibility, or if negative to furnish such evidence as a series of observations on one individual would afford, Dr. Cory vaccinated himself and had himself vaccinated with lymph from the vaccine vesicles of different children at different times, all of whom were unquestionably affected with syphilis. In the first instance he succeeded in developing a genuine vaccine vesicle without any manifestations of syphilis; in the two succeeding instances no result followed. In the fourth attempt be developed genuine syphilis. The circumstances of the fourth and demonstrative case may he thus summarized: A young child suffering from genuine inherited syphilis was successfully vaccinated with vaccine virus—we are not told whether human or bovine, nor is it a matter of much consequence. July 6, 1881, Dr. Cory himself preparing the lancet with lymph—no admixture of blood—requested one of his colleagues to vaccinate him in three places. On the 28th of July (21st day) a red condition was observed on two of the spots where vaccination had been performed, which when they were shown later to Jonathan Hutchinson and Dr. Humphrey, were declared to be genuine syphilitic sores. This was to Dr. Cory a sufficient demonstration of the possibility of conveying syphilis through the medium of

syphilitic vaccine lymph. The majority of physicians we imagine who know something of the mysteries of syphilis would have accepted the proposition without the demonstration; but they will nevertheless appreciate the demonstration and adhere with greater tenacity to the almost universal American custom of using bovine virus.

Having demonstrated this point Dr. Cory proceeded a step further and illustrated another point not less valuable, inasmuch as it deals with a question which has been somewhat extensively advocated of late; namely, the excision of the primary syphilitic sore. Had this excision been successful there might have been some doubt in the minds of some as to the accuracy of the diagnosis, notwithstanding the illustrious names who furnished the diagnosis. But the excision did not arrest the development of a roseolar eruption and general constitutional signs by which Dr. Cory was so firmly convinced that he put himself under a regular course of antisyphilitic treatment. The names associated with the report from which the information is obtained are a guarantee of the accuracy of this account.

Ergot in Chorea.—Ergot is of unquestionable value in many affections of the cerebro-spinal system, and we are quite prepared to accept the following suggestion of Mr. J. R. Forrest in the London Lancet:

Assuming the correctness of Dr. Dickinson's observations on the state of dilatation of the smaller vessels of the brain and spinal cord in many cases of chorea, it occurred to me that the administration of ergot might prove useful. Accordingly, in a case which has recently come under my treatment I began with five minims of liquid extract of ergot thrice daily. At the same time, with the view of allaying the irritability and imparting tone to the motor and sensory nerves, I added to the mixture one minim of arsenical solution. The patient was a boy seven years of age, who twelve months ago had an attack of acute rheumatism. The heart was unaffected. General choreic movements were present; the tongue could not be protruded; swallowing was accomplished with great difficulty, the child only being able to take fluid nutriment. The mother told me that his sleep was much disturbed. Continuing the treatment for a week, the state of my patient was not markedly changed; but during the second week the movements were very distinctly lessened, sleep was much improved, and he could walk with greater ease. In the course of the next week the tongue could be quietly protruded, and the movements of the arms were much less marked. I can truly say that I never saw a worse case of chorea than this boy presented, and his improvement was strikingly rapid. Of course I do not presume to dogmatize where the treatment has been followed out in the case of a single patient, but it appears to me that the administration of ergot is physiologically appropriate, checking the hyperæmia of the nervous centres. Arsenic alone does not act so rapidly as its combination with ergot in this case. I may add that cod-liver oil was given internally, and cold sponging to the back every morning. I should be very interested to know the results of the administration of ergot in a number of cases by those who have more opportunities than I have.

Another Sure Cure for Gonorrhoea and its Concomitant.—Troublesome gonorrhoeal cases do not fail to occur except in the experience of those who are in the possession of unfailing remedies. A retired army surgeon, without apparently expecting such good results ordered for an officer, some fifteen years ago, who was just about to present himself for duty but who was suffering from gonorrhoea associated with an intense chordee at night, the following two preparations. aquae, ℥vij, mucilago acaciae, ℥j, ext. belladonnae, gr. xx, and zinci sulph., gr. xx. A teaspoonful injected frequently. The other is an external application consisting of unguenti spermaceti ℥iv, unguenti hydray ℥iv, ext. belladonnae, gr. x, ext. opii, gr. x, to be smeared freely along the perineum and around the crura penis at night. "Complete cure" occurred within a week and "from that time"

continues the surgeon, "I have had numerous gonorrhoeal cases of every type and stage, and I have caused to be used the injection in every instance, and without exception with unfailing success.

We do not expect, should any of our readers try the formula suggested, that they will be equally successful, but if it adds an additional idea for reflection, something will have been accomplished.

Destruction of Lupus.—Dr Morris, according to the Medical Bulletin, passes a double-threaded screw under the lupoid tissue and then withdraws it. He claims that the screw destroys the deep infiltration but saves the external feature of the integument and thus to a great extent prevents scarring.

Death of Professor Cohnheim.—Prof. Dr. J. Cohnheim succumbed after long and severe suffering on the evening of August 14, at Leipzig. His death was not unexpected. It was notorious for a long period of time that an insidious renal trouble was sapping the life-blood of the renowned scientist and teacher. Still, his friends and collegiate associates hoped for a temporary respite and trusted he would not so soon be snatched from the scientific labor he so faithfully and successfully pursued. Now that he is dead, his value, his comprehensiveness of physiological and pathological lore, his rare didactic power is manifest in its full extent to German medical minds, and the Berliner Klinische Wochenschrift asserts that Germany has lost its happiest, its most ingenious student, and that it will be difficult—yea impossible, to replace him in the station he achieved! He has established his own monument, and the epitaph thereupon is written in glorious characters by his own hand!

The result of the autopsy of Cohnheim, conducted by Dr. Huber of Leipzig may be, summed up as follows: Gouty cirrhosis of both kidneys; very considerable shrinkage of the left; concretions in both. Arterio-sclerosis; a high degree of excentric hypertrophy of both ventricles of the heart. Brown induration of both lungs; hydro-thorax on the left and pleuritis of the right side. Necrosis by infarction of the left kidney.

The pathologico-anatomical section of the International Congress at Copenhagen sent the following telegram to the bereaved widow: "The Section of Pathological Anatomy of the International Congress in assembly at Copenhagen are sorely distressed on receipt of the news of the death of the distinguished pathologist, Dr. Cohnheim. We extend our sympathies to the bereaved family. The name of the untiring and renowned scientist will live and be perpetuated by a grateful posterity." The above was signed by Reisz, Virchow, Cornil, Heller, Heyberg and Sangalli.

Prof. Dr. Julius Cohnheim was the Director of the Pathological Institute and Professor of General Pathology and Pathological Anatomy of the University of Leipzig. He was one of the most renowned of the pupils of Virchow; he rivaled his teacher and stood in the foremost ranks of the eminent disciples that great man has sent out to all lands.

Cohnheim was born in 1839 at Demmin; he attended the "Gymnasium" and after completing his course pursued the study of medicine in the years 1856 to 1860 at the Universities of Berlin, Würzburg, Greifswald and Prag. After passing his "Staats-examen" he practiced medicine at Berlin. Soon, however, he drifted into strictly scientific work and was chosen assistant to Virchow at the Berlin Pathological Institute in 1864. In 1868 he was honored by a call to the University of Kiel to fill the regular chair of Pathological Anatomy; four years thereafter, in 1872, he was secured by the University of Breslau to succeed Prof. Waldeyer, that most excellent savant and gentleman, who accepted at that time the professorship of anatomy and histology at the new founded University of Strassburg, where we were so fortunate to labor under his immediate supervision for two years and became acquainted with his kind disposition to American students.

At Breslau Cohnheim reached the zenith of his fruitful activity as an academic teacher

and investigator. There he studied and wrote out his important researches on tissue-change in embolism and founded his theory of inflammation on minute and exact experimental analyses. Up to that time Virchow's view that the pus-corpuscles in inflammation were derived from the fixed tissue cells of the inflamed territory prevailed. Cohnheim demonstrated that in all inflammatory process a migration of white corpuscles out of the vascular channels into the tissues takes place. These observations were rendered incontestable by the most crucial tests. As a result a new "school" of pathological research sprang up and the most eminent pupil of the same is Professor Weigert. When Professor Wagner died in 1876, at Leipzig, Cohnheim was requested and induced to succeed him and occupy his chair. He did so on the condition that Weigert, his chief assistant, accompany him and be styled "professor extraordinarius," with all the honors and emoluments thereto appertaining. In this position Weigert has earned fame as a histologist of new methods.

The influence of Cohnheim was wonderfully stimulating. His death at the untimely age of 45 years is to be deplored. Science lost a man of infinite promise.

Resection of Portions of the Intestinal Canal.—Operations on the abdomen are now so common that no one would be justified in neglecting a definite uncomplicated case of obstinate obstruction, nor be justified in leaving to nature a clear incised wound of the abdomen or a bullet wound where there are good indications that the intestinal canal is implicated. This subject was very ably discussed by Prof. C. T. Parkes before the American Medical Association, and certain fundamental rules for observation were then laid down. The substance of these we published in one of the May numbers of the Review. We have since seen Mr. Frederich Treve's article in the Medico-Chirurgical Transactions, 1883, and as the subject is so important we shall refer here to two or three points associated with such operations. Dr. Parkes distinctly states that in gun-shot wounds of the intestines the incision should be made in the mid-line regardless of the bullet holes. Although Dr. Treves takes up the general question with the exception of operations for pyloric cancer and artificial anus he distinctly advocates the plan of making all incisions for other operations in the mid-line. "If it is intended," he says, "to resect the bowel and then to unite the divided ends by sutures I am strongly of the opinion that the median incision is the best.

The following circumstances, says Treves, may contribute to the failure of the operation The bowels may be unduly exposed and handled during the operation. The gut may be damaged by the clamps or ligatures applied to prevent extravasation of its contents. The difficulty of introducing the proper number of sutures may render the operation of long duration, and on this account it has on more than one occasion occupied over two hours. Fecal extravasation may occur after the united gut has been returned, owing to the improper manner in which the stitches have been applied, or to their insufficient number. In one instance (Baum's case of resection of part of the ascending colon) only six sutures were applied, with the result of fecal matter escaping soon after the operation was completed. When one remembers that in cases of resection of the pylorus from forty to sixty separate stitches are not considered too many, it will be obvious that six sutures applied to the colon will be almost as useless as one. In several cases the fatal issue appears to have been due to a kinking or abrupt angular bending of the gut at the seat of the resection. The result can, I think, be avoided by taking care that the gut at the seat of the operation is well occupied by intestinal contents before it is returned into the abdomen. If moderately distended the gut has little opportunity for bending, while the distension serves to test the security of the stitches. In the second place, a proper treatment of the mesentery may help to prevent occlusion of the suture line. The mesentery attached to the piece to be resected should not be divided in a straight line close to its attached border, as has been

usually done. The better plan is to remove a triangular piece, the base of the triangle corresponding to the portion of bowel to be removed. The edges of the gap thus formed in the mesentery should then be carefully approximated by a few points of suture, and care should be taken to remove no more of the membrane than that corresponding to the segment of the gut to be excised.

It will be remembered that Dr C. T. Parkes also discussed somewhat extensively the management of the mesenteric stump, and we are of opinion that the plan which he finally tried, but without sufficient experience to enable him to definitely adopt it, is more efficient than the plan suggested by Mr Treves. The plan referred to is that of resecting the bowel up to the mesenterie junction and there cutting off the wall of the bowel close to the mesenteric junction in the longitudinal direction on both sides. Finally, to detatch the mucous membrane from the strip of the bowel wall attached to the mesentery and finally double the mesentery upon itself and attach with sutures. One of the great difficulties which both operators found in the manipulations was the prevention of the contents of the canal from escaping. Dr. Parkes found that when there were sufficient assistants on hand the best means of preventing the escape was the thumb and finger of an asssistant. Mr. Treves has devised a special clamp for that purpose which he thus describes:

The apparatus consists in the first place of two clamps to secure the gut above and below the site of resection. Each clamp is made of two separate and light metal bars, provided with an India-rubber pad on the surfaces that are in contact with the gut. The clamp is two inches and a half in length, and one part being placed beneath the gut and the other upon it, the two are then approximated by screws placed at each end. By this means the gut can be evenly and accurately compressed with as much or as little force as may be thought fit. I find that a clamp of the size exhibited is equally suitable to the small gut of a child and the distended colon of an adult. I first apply a clamp to the gut one inch and a half below the proposed resection line, and then having emptied the part to be excised by squeezing its contents upward, I apply the second clamp a similar distance beyond the upper resection line. Thus in most cases an empty condition of the part to be removed can be insured. A triangular piece of the mesentery should then be excised, the base of the triangle exactly corresponding to the part of gut to be removed. All its divided vessels having been secured, the diseased gut can be at once resected. I now unite the corresponding ends of the two clamps by means of long narrow steel rods secured to the extremities of each clamp by a small screw. By means of these bars the two clamps can be evenly approximated and the divided ends of the gut brought into the most accurate contact.

When all the screws are secured the bowel to be united by ligature is held in a rigid frame, so that it can be turned over or moved in any direction without disturbing the contact of the two divided ends. By this means the sutures can be readily applied to the sides and under surface of the bowel as to its upper or more exposed surface. The frame does not require to be held and any risk from the slipping of the divided intestine is quite avoided. The sutures may then be introduced. Now, although the frame maintains the bowel ends in accurate and stable position, yet those portions of gut, being limp and collapsed, are therefore not easily united. After resorting to various other devices Mr. Treves speaks favorably of the use of a thin rubber bag, which he thus describes:

I had a very thin india-rubber bag made about three inches in length, of sausage shape, and that could be distended by air to a large size through a tube inserted about the middle of its long axis. Having blown out this bag till it was about the size of the divided bowel, I inserted one end into the lower piece of the intestine, and the other end into the upper piece. The tube that supplied it with air would thus occupy the suture line. After being inserted the bag can be distended to any size, and can thus

quite overcome any inequalities in calibre that may exist between the two pieces of bowel. It moreover forms a firm support to the interior of the gut over which the sutures can be most readily applied. If the distension of the bag disturbs the mutual relations of the divided ends, this can be rectified by a slight readjustment of the clamp. The sutures are then applied all round the gut and almost close up the interruption in the suture line caused by the tube that fills the bag. The sutures having been applied, the bag is exhausted of air and is withdrawn from the bowel, and so thin is its structure that the collapsed bag can be drawn through a hole with the circumference of a No. 13 catheter. It only remains, then, to close the little opening left after the removal of the bag. If the stitches are properly applied, there should not be the least risk of pricking, the bag, for the sutures should not include the mucous membrane.

This general principle has been advocated before, but perhaps the rubber-bag will fill the bill better than previous devices.

Both operators prefer the Lembert stitch and decide that the stitches must be close together,varying from fourteen to twenty in one section.

Hypnotism.—The Medical and Surgical Reporter quotes as follows:

The Lancet says that the curious phenomena collectively designated by the term "hypnotism" have frequently been the subject of popular attention, more especially under the mysterious names of Braidism, Animal Magnetism, and Electro-biology. Hypnotism in a simple form is, as our readers very well know, a very old story. More than two hundred years ago the possibility of "enchanting" a hen by drawing a line before its eyes with a piece of chalk was well known, and was demonstrated to an awestruck audience by the Jesuit priest, Anasthasius Kircher. Possibly, on account of its supposed association with magic, little notice was taken of this remarkable phenomenon until about one hundred years ago, when a Swiss, Anton Mesmer, brought the subject into notoriety in France and applied it to man. In the earlier half of the present century Mr. Braid,ofManchester,examined the matter with scientific care, and tried its curative efficacy on his patients in England; but his views met with disfavor, and the question was not taken up by the scientific or by the medical world until comparatively recent times, when a number of physiologists attempted to investigate it. Dr. Gerald Yeo, professor of physiology at King's College, has recently devoted some attention to the subject. We may briefly summarize the conclusions at which he has so far arrived. It is believed that the corpuscles of the grey matter of the nervous centres are called into activity by special nervous influence, which, like those affecting the muscular and glandular tissues, are associated with changes in nutrition. These nerve-regulating centres are constantly kept alive to the state of the various parts of the body, and accordingly affect the nerve-mechanisms belonging to each. When several of the more influential textures are fatigued, the entire frame is made to repose (sleep). In sleep a variety of mental and muscular acts may be performed, if certain tissues or organs remain in a state of activity (somnambulism). Without sleep, in the ordinary sense, the nervous "governors" of certain organs and parts may be thrown out of gear by notice of a special condition of the organ arriving at its nerve-regulating center. The impulses indicating this condition (fatigue) may be counterfeited by certain variations in quantity or quality of ordinary stimulation. When local psychical arrests are thus produced without real fatigue of the organs, the surplus energy,arriving at the excito-neural centers, sets up an excessive action of some groups of corpuscles, and thus certain faculties appear exalted in acuteness.

Osmic Acid In Epilepsy.—This remedy is employed by M. Wildermuth in epilepsy, having proven of decided value in cases of neuralgia. Instead of the acid a salt, the osmiate of potassium, is employed. The drug is given in pilules, containing one milligramme of the medicament. The maximum daily

dose employed was fifteen pilules or fifteen milligrammes, i. e., two and one-half grains. The remedy was employed in thirteen cases of confirmed epilepsy, We learn that a combination with bromide of potassium was first tried but was discarded, giving no good results.

The sole influence of the osmiate diminished the attacks in frequency. In only one instance complete cessation of the attacks followed.

Methods of Therapeutic Research.—This is the title of the address at the opening of the section of Pharmacology and Therapeutics of the British Medical Association, by Dr. T. J. Maclagan, in the course of which, speaking of our ability to cope with disease germs in the body, he says (Medical and Surgical Reporter):

There remains the other possibility—the destruction of the organism in the system. This, too, is a hopeful field of research, and it is open to us. It has, indeed, been already entered on, and a new group of remedies has been suggested and given a local status as therapeutic agents under the name of germicides. Our knowledge of these agencies is at present very limited; but we may reasonably hope that in time, as we gain in our knowledge of individual germs and their condition of life, we may also learn how to destroy them in the system. There are some, and there may be many, germicides which, while fatal to germs, are not injurious to the human body. If we could find one which was fatal to the germ of typhoid fever, but which could be taken with impunity by man, that germicide would arrest the course of typhoid fever, if given sufficiently early before the local lesion had made much headway; and so with diphtheria, scarlatina, and all the diseases to which the germ-theory applies.

As each germ has its own special life-history, its own peculiar conditions of life, under which alone it can flourish, and its own special action on the system, it is probable, too, that each will have its own special destructive agency. An agency which destroyed the typhoid germ might have no action on that of typhus or that of scarlatina.

You are all aware that of late years much evidence has been adduced to show that the poison of the malarial fevers is an organism which is propagated in the system. It is probably by its destrructive action on this organism that quinine (a recognized germicide) exercises its curative action in intermittent and remittent fever. I believe, and have elsewhere given my reasons for my belief, that it is the same with rheumatic fever and the salicyl compounds—that the poison is malarial, and that these agencies (also recognized germicides) owe their remarkable effects in that disease to their destructive action on that poison.

Be that as it may, the recognition of the existence of such agencies as germicides, and the possibility of dealing with deseased processes, and actually curing disease, by agencies which do not necessarily have any action on the system, which act, not on the sufferer, but on that which makes him suffer—the recognition of such a possibilitymarks an epoch in therapeutics, and opens up to us a vast and interesting field of research, on which I hope we shall not be slow to enter, and from which great results may not unreasonably be looked for.

CONTRIBUTIONS.

VOMITING IN PREGNANCY.

BY DR. R. C. HOLLADAY, JOPLIN, MO.

This is frequently one of the most distressing symptoms of pregnancy. It ordinarily comes on soon after conception has taken place. Sometimes, however, it does not appear until the third or fourth month; in others again it comes on only toward the close of gestation. In some women it lasts only six or eight weeks, in others it continues four or five months, while in some few severe cases it persists throughout the entire period of utero-gestation. The nausea and vomiting may occur at any time of the day, but it is most apt to occur on first rising in the morning. In some cases it disappears in a few minutes,

while in others it may last throughout the greater portion of the day. In some the vomiting is very slight, and gives rise to but little distress; in others it is attended with severe retching, vertigo, and other painful symptoms. Those who vomit upon rising in the morning usually throw up some viscid, glairy mucus, mixed with a small quantity of bile. Those who vomit only after taking nourishment, throw up some mucus, and a portion of their food. In some nearly all the food taken seems to be expelled, even for months in succession, and yet a good delivery succeeds at full term. The repeated vomiting seems to exert but little influence on the general health of the woman. I have seen women rise from the table, vomit and return to their food and finish their meal as if nothing had happened.

In other cases the sickness is so excessive as to resist all treatment and seriously affect the patient's health and even place her life in danger.

Very different opinions have been held as to the cause or causes of the sickness in pregnancy.

Dr. Henry Bennett would have us believe, that, when at all severe, it is always associated with congestion, and inflammation of the cervix uteri. Dr. Graily Hewitt tells us that it depends entirely on flexion of the uterus, producing irritation of the uterine nerves at the seat of flexion and consequent sympathetic vomiting.

Another explanation is that the nausea and other sympathetic disturbances depend upon the stretching of the uterine fibres by the growing ovum and irritation of the uterine nerves.

In my opinion neither of the above theories furnish a full explanation of the causes of this sympathetic disturbance. It is true that either of the above named conditions may intensify and render more persistent the symptoms when present; but they are not the common cause of their development. We may have nausea and vomiting without flexion, or vice versa. Inflammation of the cervix is present only in a very small per cent of the cases, where vomiting exists. Distension of of the uterine fibres may or may not be followed by nausea and vomiting. That the gastric disturbance depends upon nervous irritation, I entertain but little doubt; and that the irritation has its origin in the changes taking place in the corpus luteum of pregnancy, and that the changes taking place in the uterus tend only to increase the nervous irritation primarily set up and perpetuated by the physical changes going on in the ovary and its corpus luteum.

In making this statement, I am perfectly conscious of the fact, that the idea set forth here is not in harmony with the teachings of the day, but inasmuch as there is a great diversity of opinion among the different writers as to the cause of vomiting in pregnancy, I feel the more at liberty to express my views on this subject, and at the same time present to you what I believe to be a true explanation of the cause of gastric disturbance in pregnancy.

Now, in order that we may present this subject to you in a clear and intelligent manner, let us first view it from a physiological stand-point.

At each menstrual epoch, the rupture of a Graafian follicle, and the discharge of a mature egg occurs; a slight hemorrhage takes place about this time, and the interior of the Graafian follicle is soon filled with a coagulum. In a few days the serum separates from the coagulum proper and is absorbed. The vesicular membrane also becomes thickened and convoluted, and tends partially to fill the cavity of the follicle. The follicle has now become completely solidified, and receives the name of corpus luteum.

After the third week from the close of menstruation, if fecundation does not take place, the corpus luteum passes into a retrograde condition and soon disappears. Now if on the other hand fecundation does take place we have a marked variation in the changes taking place in the corpus luteum. This change, however, in its formation is not marked until about the third week of pregnancy, but after that time the difference becomes very apparent.

Instead of commencing to retrograde as the false corpus luteum does, the true corpus luteum continues its development until the end of the fourth month in pregnancy, when the corpus luteum usually attains its full development, and forms a firm projection on the surface of the ovary, about one inch in length, and one-half an inch in breadth.

Ordinarily at this stage of gestation, a retrograde process begins to take place in the corpus luteum, the fat cells become absorbed and the capillaries disappear; cicatrization taking place the third month after delivery. Occasionally we meet with exceptions to this rule; sometimes the increased development of the corpus luteum does not begin to take place until an advanced stage of gestation, while in the other cases the development commences early and continues throughout the entire period of gestation.

Having thus briefly intimated the changes taking place in the false and true corpora lu-

tea, let us now inquire how these changes influence the digestive functions, and what evidence we have, if any, that they are, under ordinary circumstances, the chief factors in bringing about this distressing symptom, vomiting.

In the beginning of this article, I stated the fact that the nausea and vomiting, as a rule, made their appearance soon after conception had taken place, and continued to be present in a greater or less degree (in normal cases) till about the fourth month, when they gradually disappeared.

In some severe cases, however, they continue throughout the entire period of utero-gestation.

Now let us briefly review the history of the growth and development of the corpus luteum, and see if we can discover any relationship existing between these strange and wonderful phenomena. In pursuing our investigations of this fact we are at once struck with the fact that the appearance of the one corresponds exactly in point of time with the growth of the other.

The nausea and vomiting appear about the fourth week in pregnancy, and in ordinary cases disappear about the fourth month.

The increased growth of the true corpus luteum begins to take place about the third week after cessation of menstruation, and progresses till about the fourth month, when it begins to retrograde, disappearing entirely about the third month after delivery. Thus it will be observed that the nausea and vomiting appear just at the time when the ovary is in a high state of irritation from the increased growth and development of its corpus luteum, and that as soon as the growth of this body ceases and begins to retrograde, that these distressing symptoms promptly disappear.

If from any cause the growth of the corpus luteum continues to an advanced stage of pregnancy, as it sometimes does, then we will have one of those persistent and aggravated cases of nausea and vomiting.

In proof of this fact I will cite a case that occurred in my practice some time ago.

Mrs. S., æt. 20 primipara, suffered greatly from morning-sickness since the fourth week of her pregnancy, and was seven months advanced at the time of her death, which occurred from an overdose of morphine taken through mistake. On examination the ovary was found to have been in a very irritable condition, and the corpus luteum in a high state of development, measuring one inch in length, one-half inch deep, and five eighths inch in breath.

Was this only a coincidence? So closely and with such regularity does the development of the gastric symptoms follow upon the increased growth and development of the corpus luteum, and the disappearance of those distressing symptoms corresponds with the retrograde changes taking place in this body, that to say it was simply a coincidence does not to my mind furnish a satisfactory explanation of so wonderful a phenomena. There may be many other conditions that intensify and perpetuate this symptom when once developed.

Congestion and inflammation of the cervix uteri will tend to aggravate the symptom and render it more persistent.

A flexion of the uterus producing irritation of uterine nerves at the seat of flexion and thereby increasing the degree of reflex nervous irritability is a complication occasionally met with. Temperament also exerts a wonderful influence in some cases. Those of nervous temperament suffer most. This is not owing to the presence, in a greater degree, of the exciting cause, but a greater susceptibility on the part of the nervous system to reflex influence.

If either of the above conditions be present, they may render it more persistent than it otherwise would be. But they are to be regarded as complications only, and be treated as such, but never as the primary cause.

To sum the whole thing up, I have come to the conclusion, as before stated, that the gastric trouble is sympathetic in its nature and depends upon reflex nervous irritation, that this irritation has its origin in the ovary, and is the result of the increased growth and development of the true corpus luteum, and that in uncomplicated cases in proportion to the degree of development to which the body attains and the length of time that elapses before its retrograde changes begin to take place, will be the prominence and duration of the annoying symptom.

I will now endeavor to set forth, and discuss the best treatment for this most troublesome and distressing symptom to which pregnant women are so prone. The methods and theories which have been advanced for the management and cure of this symptom are various, and each has its own particular merit; each is seemingly successful insome case, whilst in others it seems to haveno effect whatever.

The treatment is both palliative and curative. In mild cases, when ovarian irritation is slight, but little or no treatment is required. A certain amount of increased vascularity of the ovary is a normal, physiological process and gives rise to but little disturbance, which soon subsides. It is only in those cases where

the increased growth and development of the corpus luteum extends beyond the normal limits or when complications exist and the nervous irritation is great that active interference on the part of the physician becomes a necessity.

The palliative treatment consists in those remedies which are directed to the immediate relief of the vomiting and cannot be relied upon for the permanent cure of the symptom. Among the most efficient of these may be mentioned: Oxalate of cerium, which was brought to the notice of the profession by Sir James Y. Simpson; Ingluvin is a remedy that has been found very useful in this trouble, but in this form of vomiting it should always be given before meals. Various other remedies used for the relief of vomiting may be tried in these cases, such as sulphate of copper, mustard to the epigastrium, etc.; all of which may prove efficient in some cases, while in others they are of no avail.

The above is the mode of practice usually adopted, which is very good as far as it goes. But when from any cause the retrograde change does not take place at the proper time in the corpus luteum, and the growth and development of this body extends beyond its normal limits, we have as a result the development of a high state of ovarian irritation with all its reflex phenomena.

The functions of the stomach become profoundly disturbed, and the poor suffering woman is brought down almost to death's door by this distressing symptom, and day after day your patient appeals to you for relief from her terrible condition. Prescription after prescription is taken without the least improvement in the patient, until at last discouraged by your repeated failures, she seeks advice of another and is prescribed for and treated with like results. In this condition she drags out a miserable existence until nature, in her own feeling way, sets to right that which science might have done long ago.

To treat successfully this very annoying condition, requires on the part of the practitioner the exercise of a little common sense and judgment, coupled with the ability to reason from cause to effect. He should keep constantly before his mind the one all-important and established fact that the gastric trouble is purely reflex in its nature, the source of the irritation being in some other organ. This is the first stepping stone toward success in the management of this trouble; with this fact constantly before your mind, what is the most rational course of treatment to pursue? Simply to treat the functional disorder of the stomach, or to seek out and as far as possible remove the irritation producing the reflex action. If you were called to see a patient who was suffering from the pressure of a thorn or other foreign body in his flesh, what would you do for him? Would you simply prescribe an opiate and leave the rest to nature? Would this be a common sense plan of procedure? Certainly not.

Common sense would suggest the speedy removal of the irritating body, and the employment of such palliative measures as are necessary to overcome functional disorder. The same rule applies to the treatment of reflex vomiting. Let us first locate the cause, then if possible effect its removal. If retroflexion of the uterus exists as a complication, replace the organ and retain it in its proper position. If there be an inflammation of the cervix, as is sometimes the case, treat the inflammation and you will contribute greatly to the relief of the patient. If it be an increased growth and development of the corpus luteum beyond its natural limits, the chief points are the arrest of the growth of this body and the suspension of the reflex nerve irritation. The former may be accomplished by the use of saline cathartics, small doses of arsenic and iodide of potassium. Cold hip baths and rest in the recumbent position as much as possible prior to the fourth month of gestation is also rational. The last precaution should be observed in order to guard against additional irritation of the ovary from traction of the broad ligaments by the descent of an enlarged uterus, that would otherwise take place. To control reflex action I have often had excellent results from the use of a ball of cotton saturated with the ointment of belladonna, inserted into the upper part of the vagina, in a position to act as a support to the uterus, being inserted in the morning before rising and removed on retiring. Small doses of Tr. nucis vomicæ, aconite or ipecac given internally are often followed by good results. There are many other good remedies that I might mention, but space will not admit.

To sum up briefly the points of treatment, we should, first, remove existing complications; second, control abnormal growth and development of the corpus luteum; and third, control reflex nervous action.

A German paper proposes to detect watered milk by the following simple process: A well polished knitting needle is dipped into a deep vessel of milk, and immediately withdrawn in an upright position. If the sample is pure some of the fluid will hang to the needle, but if water has been added to the milk, even in small proportions, the fluid will not adhere to the needle.

INTERESTING FRACTURE CASES.

BY JESSE E. THOMPSON, M. D., LAKE VALLEY, N. M.

Read before the Southern New Mexico Medical Association.

CASE I. POTTS FRACTURE OF THE FIBULA; HORIZONTAL FRACTURE OF THE ASTRAGALUS WITH COMPLETE DISPLACEMENT; COMMINUTED FRACTURE OF THE NAVICULARE AND DISPLACEMENT OF THE TIBIA, WITH LACERATION OF THE SOFT PARTS.

Col. L., æt 40, very corpulent with defective life force, but in the enjoyment of good health, on the 20th of November, 1883, was violently thrown from the top of a runaway,and overturning stage-coach, at a height of twenty feet, alighting in a rocky gulch. General collapse rapidly ensued. One hour after the accident an examination revealed a deep lacerated wound over the external maleolus extending from the instep to the tendo achilles. The astragalus was broken horizontally as you see (here the bones of the ankle were exhibited to the members of the society) and torn from its attachments, carrying with it one inch of the fibula; both fragments lying out upon one side of the foot, each being held by a ligament, which were at once divided and the fragments removed. Six inches of the lower end of the fibula was comminuted, all the broken pieces of bone being removed. Upon closer examination the naviculare was found to be crushed into six pieces,which were removed,the wound thoroughly washed with carbolized warm water. A light warm dressing was applied to the foot. The pulse was found to be 120, small and irregular; temperature 97.5°. There was a striking pallor of the whole surface. Lips pale and bloodless. A cold clammy moisture bathed the skin, with drops of sweat upon the forehead. Countenance dull, shrunken and contracted. Eyes languid; nostrils dilated. Extreme muscular debility; inability to more than move hand or foot; a fluttering action of the heart; feeble and sighing respiration; patient asked to be fanned and have the windows raised; great thirst; complained of chilliness, and called for a heavy pair of blankets to be thrown over him; nausea and vomiting supervened with a constricted feeling about the chest, and throwing off of bed covering; desire to urinate,but inability to do so; evacuated the bladder with catheter. Morphia $\frac{1}{12}$ gr. administered hypodermically,with brandy internally. After the lapse of one hour the morphia was repeated; brandy given freely; signs of syncope began to show themselves, and at the expiration of thirteen hours from the receipt of the injury a half comatose condition supervened with nearly imperceptible pulse, and very heavy breathing. After about four hours a reaction set up, marked by extreme prostration with excitement; pulse rapid, irregular and weak. The fright and all thoughts connected with the injury had produced marked psychical depression from which the patient did not rally. At the expiration of 30 hours the consulting physicians, Dr. Davis, of Soccoro, N. M., and Dr. Proctor, of Deming, N. M., arrived and urged amputation, which was performed at 9 P. M. on the second day. Dr. Proctor administered the anaesthetic—ether and chloroform. The patient seemed to rally under its influence,which is usual in such cases. The operation was a double flap at the middle third of the leg, Dr. Davis assisting. Decomposition had set up in the wound. Hot cloths were kept to the stump and limbs. After five hours erysipelatous patches appeared on the stump and rapidly spread to the body. The patient soon became unconscious, and died 18 hours after the operation.

In my judgment the amputation was ill advised and would not have saved the life of the patient at any time after the receipt of the injury, he being practically moribund before he was removed from where he fell.

Had this patient possessed a good constitution and strong powers of endurance with soldierly fortitude, in all likelihood his foot could have been saved with an anchylosed joint. At least I am adverse to amputative interference in cases like the present one, till it becomes evident from destructive processes that the wound will not heal nor the fragments form healthy union.

As to how the patient struck the ground is an interesting question. The foot was evidently turned violently inwards, and the presumption is that he struck upon the bottom of the foot, at the same time the great weight of the body (250 pounds) crushed the ankle, turning the foot inwardly; the cut evidently was made by the sharp edge of a stone imbedded in the earth where he fell.

Statistics show that the astragalus is mostly broken by a fall upon the bottom of the foot, and generally escapes injury in those crushing accidents which break many c most of the bones of the foot. In this ca the fracture of the naviculare is indeed int esting and perhaps unique from the fact t the injury was caused by a fall upon the b tom of the foot. The head of the astraga seems to have been driven into the navicul which accounts for the bone being comm uted.

CASE II. FRACTURE OF THE LOWER JAW.

Mr. T., æt. 35, superintendent of the Superior Mining Company, of regular habits and good constitution, was thrown from the top of the overturning stage-coach at the same time Col. L. was injured; striking, as he supposed, upon his left shoulder, the humerus was dislocated forwards (subclavicular). After the reduction of the dislocation, Mr.T. called my attention to a deep cut in the lower margin of the inferior maxilla one-half inch to the left ofthe symphysis, at the same time complaining of inability to open the mouth. On opening the mouth it was observed that the front teeth and those on the left side were loosened and raised from their sockets and turned outward one-fourth of an inch. In pressing them back to their place I found an oblique fracture, beginning opposite the first left incisor, and extending about half way between the symphysis and the mental foramen to the left, through the body of the bone,while the alveolar margin was broken beginning at the right lateral incisor, extending to, and crossing the oblique fracture, and including the alveolar margin as far back as the last molar. The services of a dentist were procured who made a vulcanized rubber plate fitting the teeth accurately and firmly holding them in place. A perfect recovery took place without the loss or injury of any of the teeth. The pain resulting from periostitis was relieved by the local application of chloroform.

Case III.—Fracture of the Acromion Process in Front of the Clavicle.

Mr. A., æt. 30, lawyer by profession, was thrown from a horse while intoxicated, falling upon the left shoulder. Next morning when he had sobered up, he discovered he was unable to move his left arm; Upon examination bruises were found upon the top of the shoulder and the upper region of the left breast. He consulted a physician who informed him that no bones were broken—only bruises which would soon get well; then the arm would recover its usefulness. A week passed and instead of the shoulder improving, it grew more painful; then he consulted me. Upon examination a fracture of the acromion process in front of the clavicle was discovered. The deltoid had drawn the fragment down, producing a decided depression. The arm was suspended in a sling and bound to the body so as to pitch the shoulder forward. Complete recovery took place, with the deformity remaining, however, the patient refusing to submit to Delpech's method of treatment.

The Italian laborers on the Panama canal are said to endure the climate better than the negroes.

AN ADDRESS ON THE INTERNATIONAL COLLECTIVE INVESTIGATION OF DISEASE.

BY SIR WILLIAM W. GULL BART., M. D., F. R. S.,

Consulting Physician to Guy's Hospital, etc.

Delivered at the International Medical Congress, Copenhagen, August, 1884.

[CONCLUDED.]

The English Committee has proceeded as follows. Having first determined certain subjects for Collective Investigation, cards of queries have been framed, and distributed through the different Sections, leaving each member to select such subjects as he might prefer.

As regards those life-histories of which I have spoken, patients and practitioners are advised to apply to the Association for blank books for these records. The head of the family, or other person, is directed to request the medical attendant, after each illness, to write a brief account of it, with any note he may be pleased to add; so that, after the manner of genealogical trees—which show the distinctions of a family through the heroic deeds of its ancestors—there should be a genealogical history, in time to come, of all the diseases to which its members have been subject from generation to generation. Such books might also become a record of health as well as of disease; and so show not only how families, and from them nations, decay, but how they grow. No doubt, such records even of a thousand families would contain singular revelations, and place many of our pathological ideas in quite a new light. We might learn that, with tendencies to organic disease, there was less tendency to epidemic influences; that, if diseases were prone to change their form and multiply, they were equally, if not more, prone to lose their forms in a reversion to health; that the occurrence of one disease might confer an immunity from another.

These life-histories might, perhaps, seem to have a more national than international value; but, if they could be obtained, they would supply material for probably the widest inductions. But there is this difficulty about them. Fear, as the wise man said, is a bad counselor; and, unfortunately, the construction of these life-histories is beset with fear. There is a lurking dread in every man, and in every family, of exposing their frailties. This presents an almost impenetrable barrier to gaining the facts upon which life-histories are

built. There is a fear, also, in the minds of the inquirers themselves, since there is a natural disinclination to intrude into secrets, which are so anxiously guarded. But, whilst we bear in mind the wise man's dogma, and remember that fear is a bad counselor, we may resist its counsels as far as we can, where so much is at stake.

The clinical subjects which at present have been selected are acute pneumonia, chorea, acute rheumatism, diphtheria, and inherited syphilis. Cards of queries have been issued on each of these subjects, and each card is accompanied by a memorandum stating the object of the particular inquiry, and directing the attention of the observer to the queries proposed. These memoranda are of the first importance in this movement. It is on them that our hopes of success must be grounded. It is intended that they should indicate the defective state of our knowledge in the subjects brought forward for investigation. In doing this, their value to the profession, and to the progress of our knowledge, is almost incalculable. It is no small matter to have set before us in a simple manner what the present state of our knowledge is, the defects which have to be made good, and the inquiries likely to lead to such a result. Text-books on medicine will hereafter have to follow something of this leading. Hitherto, and for the most part, they have aimed too much at satisfying the reader, and in order to make the treatises complete, have assumed a knowledge both in pathology and therapeutics too little justified by fact, and so have hindered, rather than promoted, our progress.

These memoranda are intended to be critical suggestions and suggestive criticisms on the state of knowledge respecting the subjects brought forward. They are the centre of the proposed system. It may fairly be expected that each issue of them will be more exact and incisive. The successful framing of them is the one important object to be attained. Through them, the influence of the more advanced intellects in the profession will extend through the whole of it, and will reach its most scattered and distant members. Nor can we doubt but that there will be a reaction from the periphery to the centre, maintaining a living cycle of active mental cooperation. Who can limit the effect of such action and reaction? or deny that there will thus arise new energy and new genius? for, happily, the cultivation of science need not remain the privilege of professors and teachers, but may become the inheritance of all.

The volumes I hold in my hand are the first published records of the Collective Investigation in England. They contain reports and memoranda on the communicability of phthisis, on acute pneumonia, chorea, acute rheumatism, and diphtheria.

I would refer, by way of illustration of my remarks on memoranda, to the Memorandum on Acute Rheumatism. This recites our deficiencies on the etiology of this disease, and might also include its pathology; the exceptional ways in which rheumatism occasionally develops; its probable relation to the state of the nervous system; the new aspect of the pathology of joint-affections in relation to the spinal cord; the relation of the intensity of the rheumatic affection to anæmia; its clinical relation to tonsillitis; the intercurrent affections of the skin; and last, but, unhappily not least, the treatment. I might add, however—not as a criticism, but as a suggestion—that an exhaustive memorandum on acute rheumatism, showing the real state of our knowledge respecting this disease in all its relations, and the more than vagueness of our treatment of it, would have a value which I should find it difficult to express. Long-standing prejudices, which for the most part are entertained and fostered as if they were established and confirmed experience, would go down before the exposition of such a memorandum, and its results in International Collective Investigation as dry leaves before an autumn wind.

When inquirers on a given subject agree at the outset what are the imperfections of their knowledge respecting it, they naturally combine the more heartily in its further investigation.

The aspect of an inquiry from a personal standpoint, and that from a collective investigation standpoint, present the most important contrast. In the one, the Ego, however subordinated, is not lost. It lurks at the centre of the operations, and the results or supposed results of personal inquiry are too apt to be regarded as property, to be defended against all inroads, whether this property be worth defending or not. The observations and experience of any one man, however gifted, cannot be considered more than suggestive, and cannot have any authoritative value until confirmed by the repeated observations of others.

In a collective investigation, whether national or international, the individual and the results of his inquiry are obviously less open to distortion from personal favor or prejudice. This freedom from undue influence gives a greatly preponderating advantage to such associations as we are here met to establish. Here

the observer has no selfish interest in the result of an inquiry. His work will be equally good, whether immediately fruitful or not. The isolated observer, on the other hand, is apt to have interest in little else than positive results. In therapeutics, the truth of this is too abundantly evident, to the confusion of medical practice, and to the vaunting of remedies and methods which are mostly of no value, or may be even worse than useless. It has not escaped the remark of the master of the logic of facts, that "Habet enim unusquisque præter aberrationes naturæ humanæ in genere, specum sive cavernam quandam individuam, quæ lumen naturæ frangit et corrumpit—ut plane spiritus humanus (pro ut disponitur in hominibus singulis) sit res varia et omnino perturbata et quasi fortuita. Unde bene Heraclitus homines scientias quærere in minoribus mundis, et non in majore sive communi;" not in the common world, but in the world of themselves.

One can hardly forecast the amount of good influence on therapeutics, if, instead of individual assertions respecting the value and success of this or of that drug or method, we had the teaching of calm and impersonal results deduced from an international area of inquiry, so large, that the individual observer would be lost in the result.

Whilst our English Assocation has, as I have described, put forward several subjects for collective inquiry with the memoranda and questions I have named, our German colleagues have determined upon a somewhat different method. They have selected but one subject for investigation, thinking it better to exhaust that before taking up a second or third, and they have naturally selected a subject which at the moment prominently occupies the attention of the profession in all lands, I mean pulmonary phthisis. Upon this, they have proposed four points for solution: (1) the heredity of the disease; (2) the communicability of the disease; (3) the cure of the disease; (4) the transition of pneumonia into phthisis.

These propositions are accompanied with many questions of detail which I will mention presently. The English Committee, at the beginning of last year, also proposed as a question for collective investigation the communicability of phthisis, and have reported upon it. The German inquiry is not yet reported upon. The important discovery of Koch that there is a specific organism associated with pulmonary tubercle, and his infection-experiments have naturally excited the greatest interest respecting the communicability of the disease. It is well known that, at different times and in different countries, the contagiousness of phthisis has been confidently believed in; and, as Professor Ewald remarked at a meeting of the Verein für innere Medicin, observers in America, in England, and in Germany, have supported the belief in the contagiousness of phthisis by important records respecting it. Still, until Koch's discovery, the professional mind was very much asleep about it, or with only now and then a half waking dream.

The English Collective Investigation Committee have put forward the question of communicability in the simplest form—"yes" or "no"—as follows: "Have you observed any case or cases in which pulmonary phthisis appeared to be communicated from one to another? Please answer Yes or No." It will be observed that this is not a mere voting question as to a man's belief, but whether he has observed any case or cases of the apparent communicability of the disease. Out of the 1, 078 members of the Association who returned answers to the questions issued on this subject, at least 261 believed they had seen cases of phthisis which have originated in communication from one to another; about thirty-nine more have seen cases which have made them doubtful whether phthisis may not be so communicated; while 105 have offered facts and arguments which seem to them to negative such a view. One hundred and fifty-eight of the affirmative returns refer exclusively to cases observed between husband and wife. Communication between husband and wife is mentioned, together with other cases, in thirty-four of the remaining returns. So that 192 observers report cases of supposed communication of phthisis occuring between husband and wife.

There are also a number of special returns where the disease seems to have spread from patient to nurse, and from friend to friend. I am not here, of course, to discuss the pathology of phthisis, or of its communicability from person to person, but to argue for the advantages of collective research. And, perhaps, no subject could be selected better to demonstrate these advantages than the supposed contagiousness of phthisis. By extending the inquiry over a wide area, the recurrence of striking cases of apparent communicability are repeated over and over again, and must naturally impress the mind more than a case or two occurring in individual experience. The Committee, therefore, justly remark in their report, that they hope that this first step in collective investigation into one of the most important questions connected with the etiology of phthisis, will be of value in

leading to more open-mindedness in the discussion of disputed questions of experience and observation.

We shall await with interest the report of the Berlin Committee, for its card and queries is much beyond "yes" or "no." It presents seven sections: (1) General questions as to the history of the family of the patient, the subject of phthisis; (2) antecedents of the family; (3) previous diseases of the patient, as, for instance, whether of phthisical habit or not, what diseases preceded the development of phthisis, as scrofula, measles, whooping cough, chlorosis, etc.; (4) on the question of heredity follow queries on health of parents? either dead of phthisis? and when? have they suffered from scrofula? disease of the bones? lung diseases not phthisical? as pneumonia? pleurisy? gangrene? bronchitis? etc.; were the grandparents or parents related in blood? age of father or mother at the birth of the patient? were they sober or not? etc.; (5) contagiousness or communicability —was the disease taken from husband by wife? or from wife by husband? when the malady began? was the communicability between brothers and sisters or relatives or servants? was the contagion from residence in prisons, establishments for the insane, barracks, or infirmaries, etc. ? was the infection by residence, clothing, or beds? by nourishment as through the milk of scrofulous animals, or consumptive nurses, etc. ? (6) the curability, including only such cases where at least two years had elapsed from the beginning of the disease—where did the arrest or cure seem to begin? did this come from the improvement of the general condition? are cough and expectoration gone? have the physical conditions altered, and in what way, etc.? (7) the transition of pneumonia into phthisis—the day of the beginning of the pneumonia? its seat, as at base, apex, or middle of lung, etc; right or left lung? expectoration—sanguineous? rusty? grass-green, etc.? signs of re-convalescence? when the first signs of tubercle occurred? etc.

I have stated just now that I appear here on behalf of the British Medical Association for Collective Investigation; but I have to add that it is my duty to lay before you further what has been done by the Collective Investigation in Berlin. Within the short time that the Berlin Association has been in operation (spring, 1883), its activity and success have been remarkable. The Berlin Association had already in February, 1884, nine months after its establishment, fifty-five branches; and Herr Leyden reported to the February meeting of the Verein für innere Medicin a communication he had received from Professor Rauchfuss, in St. Petersburg, informing him that they would establish there a separate Association for Collective Research, after the plan of that of the Verein für innere Medicin, and in relation with it. In Paris also, in the Société des Hôpitaux, there had been negotiations respecting the collective investigation of the Verein für innere Medicin, and a similar one would be there arranged.

In the June sitting of the Committee, under the presidency of Herr Fraentzel and Herr Leyden, Herr S. Guttman, the Secretary, reports that the German Association is daily making progress and exciting great interest; that on all sides, from Denmark, Sweden, Switzerland, Italy, Spain, and America, there were communications asking for information respecting this collective investigation, and with a request for the cards which had been issued.

With the Verein für innere Medicin there are associated of the Berlin institutions the "Konigstadt-Verein," the "West-Verein," the "Südwest-Verein;" and for the associated societies out of Berlin there are correspondents for the medical societies in Rostock, Schwerin, Güstrow, Münster, Minden, Arnsberg, Ratisbon, Paderborn, Aurich, Thüringen, Holland, Meran, Hagenau, Salzbrunn, Frankfort (on Main), Koslin, Freiburg, Prague, Elbing, Mainz, Hanover, Gratz, Bochum, Frankfurt (on Oder), Hesse, Wiesbaden, Danzig, Memel, Marienwerder, Friedeberg, Lübeck, Chemnitz, Nürnberg, Bremen, Pomerania, Breslau, Giessen, Dresden, Posen, Essen, Halle, Kiel, Basel, Gottingen, Liegnitz, Riga, Davos and Marburg.

Further, there is an Association for Collective Research of the Institutions for the Insane, and already Herr Jastrowitz reports a combination of twelve of these institutions in different parts of the country. There is also a similar movement for inquiry into the health and the diseases of the inmates of prison and infirmaries. In fact, our German friends have in many lines outrun us. Their exertions and their success in promoting this organization make it superfluous for me to add arguments in favor of the proposition before this meeting.

I hope I may congratulate this sitting of the International Medical Congress in Copenhagen upon the happy incident, that we are to-day called upon to centralize these operations which have begun in England and Germany, into an International Committee of this Congress, whose function will be to promote them in all lands; and, by the continued

co-operation of these Congresses, carry forward a movement the fruits of which, as I have already said, it will be impossible to overestimate; whether we limit our view to the results on our members, on the profession as a whole, on the public good, or on the brotherhood of nations.

There is but one caution and that lies against our attempting too much at first. In our scientific ambition, it would not be difficult to o'erleap ourselves. It is by a little well done that we shall do much; whereas, if our deductions be hasty, incomplete, and unfounded, the authority which will naturally attach to these researches will be much more obstructive to the cause of science than the fallacious dogmas of separate individuals. If our hopes and prospects are encouraging, the steps we take cannot be too wary. The purpose of our association could only lead to failure, and, perhaps, even a gigantic failure, if the movement were not waited upon by strict caution and exact criticism. If the work proceed at the present rate, a few years will witness one of the greatest and most useful movements in modern times. The founding of an International Collective Investigation of Disease will promote the national movements of the same kind in all countries, and will give a stimulus to international emulation under the happiest form.

In the time at my disposal it is impossible to sketch, even in outline, the number of subjects which claim attention. The committees of the different sections, as the work progresses, will select their subjects from their own point of view; some, with a broader purpose, will take the more common maladies, and the more curious the rarer ones. One of our English colleagues would have concise descriptions of rare maladies prepared as an entomologist would have them prepared, of newly discovered insects; printing distinguishing features in italics. He instances rhinoscleroma, Hebra's prurigo, morphœa, Alibert's keloid of scars, Addison's disease, Hodgkin's disease; cretinoid state in the adult (myxœdema); congenital absence of special bones (such as radius and tibia, with associated portions of carpus or tarsus); cases of spina bifida, illustrating either results of treatment or survival without it; cases of sacral tumor; cases of "the recurring iritis in young persons;" aneurysms in the orbit; the osteitis deformans of Paget; disease of joints in ataxy ("Charcot's joint-disease"); non-malignant growths in the tongue; hemiglossitis; Kaposi's disease.

The arguments for these more curious inquiries are not far to seek, since diseases which are rare in some countries may be frequent in others, and, by their frequency, afford the required ground for the study of their pathology. I might instance the glandular and elephantoid diseases of China, and the successful labors of Manson and Mayers, which have traced them to the presence of the *filaria sanguinis hominis*, producing lymphatic obstructions and filarial thromboses. The elucidation of such a piece of pathology, though the disease may be limited to China, must have a good influence on the whole medical mind in breaking down preconceived opinions, and in showing that we cannot go too far afield for knowledge. It supplies, moreover, a further argument for the international collective investigation of disease.

Gentlemen, whilst I thank you for the favor with which you have received this address, I cannot but express my deep sense of the imperfect way in which I have set forth the greatness and importance of my subject. I can now but commend the matter to your good efforts, assured that, through them, success will not be wanting.

REDUCED RATES TO MISSISSIPPI VALLEY MEDICAL SOCIETY MEETING.

Acting in conjunction, in that behalf, with President Griffith and other executive officers of the Mississippi Valley Medical Society the publishers of THE REVIEW have been enabled to procure reduced rates on various lines of railroads in the West, Northwest, South and Southwest for the delegates and other members of the Society purposing to attend the annual meeting, at Springfield, Illinois, on September 23d—26th inst.

The reduction thus unitedly secured covers the following lines of travel and the special rate named for return-trip tickets:

Chicago, Burlington & Quincy,	Fare and a	third.
Chicago & Alton,	"	"
Illinois Central,	"	"
Wabash, St. Louis & Pacific,	"	"
Ohio & Mississippi,	"	"
Chicago & Northwestern,	"	"
Cairo Short Line,	"	"
Peoria, Decatur & Evansville,	"	"

Indiana, Bloomington & Western, full fare going; one cent a mile returning.

St. Louis & Cairo, full fare going; one cent a mile returning.

Delegates and members living west of St. Louis on the Missouri Pacific, or St. Louis and San Francisco Railroads, may procure Exposition tickets—covering the same dates—to St. Louis, and

thence avail themselves of the reduced rate to Springfield over the Chicago & Alton road.

In all cases, certificates of membership in the Association will have to be presented to the resident railroad agent in order to procure the round trip tickets; and these certificates may be obtained upon application to the Secretary of the Mississippi Valley Medical Society, who is supplied with blanks for that purpose. The Secretary is Dr. G. W. Burton, of Mitchell, Ind.

ITEMS.

We learn that Dr. E. H. Gregory, of St. Louis, Professor of the Principles and Practice of Surgery and Clinical Surgery at the St. Louis Medical College, has tendered his resignation to the Governor as presiding officer of the Missouri State Board of Health, to take effect January 1, 1885.

The Canadian Practitioner writes as follows: The meeting of the Canadian Medical Association held in Montreal, August 25, 26 and 27, was a grand success in all respects. There were present about 120, not including the visitors from Great Britain and the United States. The papers were as a rule above the average, and the discussions arising from time to time were generally exceedingly interesting and instructive.

The most important event of the meeting was the delivery of an Address on Abdominal Surgery by the distinguished surgeon of Birmingham, England, Mr. Lawson Tait. In appearing before the Association he was accorded a rousing and most enthusiastic reception. His able address was received with marked attention, and at its conclusion there was a perfect storm of applause.

There was so much material at the disposal of the Association that two Sections—Surgery and Medicine—were instituted as in former years; and although the work was carried on very faithfully, there being a prolonged night session in each, they were not able to complete the work of the session. Dr. Thorburn, of Toronto, acted as Chairman of the Medical Section, and Dr. Roddick, of Montreal, presided over the Surgical Section.

The general meeting was opened at 10 A. M. on Monday morning, and closed on Wednesday, Aug. 27, at 1 o'clock.

A number of the members of the British Science Association attended regularly the various sittings, and evidently took great interest in the discussions. Not only did they show this interest by their respectful attention to the remarks of others, but they made themselves at home at once, took part in the many discussions in the most friendly way, and, generally speaking, acted in a manner that was very highly appreciated by the regular members. Among those who entered most freely into these discussions were Dr. McMillan, of Hull, England; Drs. Protheroe and Heywood Smith, of London; Dr. Struthers, of Aberdeen; Dr. George Harley, of London; and many others. Many of them spoke in the most flattering terms of the meeting, and said it compared very favorably with those held in the old country. Among the visitors from the United States were Dr. Brush, of Utica, N. Y.; Drs. Brodie and McGraw, of Detroit; and Dr. Elsberg, from New York. These gentlemen received a cordial welcome from their many friends, and took a lively interest in the proceedings from beginning to end.

Mr. Tait was the lion of the meeting, and of course all were anxious to see him. He is short and broad, with a large and well-shaped head. He looks like an Englishman, and is unusually affable and agreeable. He has a fine presence, a good voice, a pleasant style of delivery, the air of a man who knows what he is talking about; and while speaking looks as if he feared not to face the whole phalanx of London surgeons who dislike so much *that fellow Tait*, from radical Birmingham.

The unbounded hospitality exhibited by the profession of Montreal was a matter of universal comment. As the Montrealers have a reputation for such conduct, the general feeling of surprise was not marked; but on this occasion, we must say, they even surpassed themselves. We can pay them no higher compliment.

The banquet given at the Windsor Hotel, on Tuesday evening, there being about two hundred present, was in all respects simply magnificent, and the interest of the Canadian guests was greatly increased by the presence of such a number from Great Britain. Dr. Hingston, who presided, conducted "the feast of reason" with the great ability and rare grace for which he has been long distinguished. Mr. Tait certainly paid him a neat compliment in saying that he reminded him of England's silver-tongued Paget. The speeches as a rule were very good, as after-dinner speeches go. It was of course understood that there was to be nothing heavy. The remarks of Dr. Struthers, Professor of Anatomy in Aberdeen; Dr. MacAllister, editor of the Practitioner; Dr. George Harley, well-known as the author of the work on Diseases of the Liver; Dr. Smith and others, were exceedingly cordial and friendly in tone, and were received with the highest marks of appreciation.

Winnipeg was chosen as the next place of meeting, and it was decided to authorize the President, General Secretary, and the Committee of Arrangements to name the date. It was thought by those best acquainted with the Northwest Territory that it would be better to meet earlier than the usual time, which is the 1st Wednesday in September, because we would be likely to see the country to better advantage before the harvest was reaped, i. e., about the middle of August.

With singular unanimity Dr. Osler was elected President for 1885. It is feared that before *many years* he will leave Canada, and the Association was anxious, under the circumstances, to honor one who for years has been one of its most able and faithful members. It is not intended that he shall simply hold a seat in the Upper Hous or be placed on the reserve force after 1885, but, on the contrary, it is hoped that wherever his lot may be cast for many years to come, he will continue to be one of our most active members. Dr. Stewart, of Montreal, was elected General Secretary, and Dr. Sheard, of Toronto, Treasurer.

The Norwegian bark Atalanta, from Genoa, after landing at New Orleans and discharging her cargo, started for Gibraltar. She put into Pensacola, Florida, August 25, flying the yellow flag, having two cases of yellow fever on board, and reporting one fatal case. Dr. Holt, President of the Louisiana State Board of Health, is trying to discover where the disease was contracted, believing the vessel must have landed at some infected port prior to reaching New Orleans.

THE WEEKLY MEDICAL REVIEW.

VOL. X. NO. 12. CHICAGO AND ST. LOUIS, SEPTEMBER 20, 1884. TERMS: $3 A YEAR.

ALCOHOLIC DRINKS—The burning and much vexed question of drink is ventilated in the British Medical Journal of August 23, 1884, It appears that one of the most satisfactory features of the International Health Exhibition was the gathering of immense numbers, seventy-one thousand people at once, for enjoyment and recreation without either drunkenness or disorder. No strong alcoholic liquor was permitted and the behavior of the masses appears to have been something quite unusual in England. The scene is compared to that of an open air restaurant in France, or a German beer-garden, where one may see numbers of people in quiet colloquy, sitting for hours and sipping light wines or beer, without any drunkenness whatever. Strong drink is a curse with us as much as it is in England, and for this reason the discussion appears of especial interest in a land where the extremes of abuse and abstinence are so manifest and pronounced. An exceedingly able article in the Times and the criticism evoked thereby gave rise to widespread public attention. In this article the writer maintains that moderate drinking is better than total abstinence for the majority of people, and, indeed, he seems to think it better for all people without exception. He divides abstainers into three classes; 1, those who abstain because they have no desire for alcohol, and do not seem to require it, since they have good digestion, especially for sugar and starch; 2, those who have a morbid tendency towards excess—a state of the nervous system either inherited or acquired, in which moderation is impossible to them, and which leaves them no safety except in total abstinence; 3, those who abstain, perhaps to their own detriment, for the sake of giving a good example to others.

Drunkards he divides into two classes: 1, those who have an uncontrollable impulse to drink, due to disease; and 2, those who have strong criminal or self-indulgent propensities, and are not subject to any external influence sufficient to control them.

The point in the article which has excited most feeling appears to be the writer's somewhat severe hit at teetotal societies, which, he says, "do very little good, and a great deal of harm. They fail to touch the evils of drunkenness except in a very limited fashion, and they take away alcohol from vast numbers who would be better for the moderate use of it." Instead of attempting to influence drunkards by example, the writer thinks that "the proper remedy for the uncontrollable drunkenness of disease would be restraint of the sick man; the proper remedy for the drunkenness of criminality or self indulgence would be so sharp a punishment as to afford reasons for pausing before again committing the offense." The writer's chief objection to total abstinence societies is that, by leading people to expect reform through their agency, they tend to prevent legislative measures for the prevention of drunkenness by restraint in cases of disease and by punishment in cases of criminal self-indulgence. Such views as these have naturally elicited lively expressions of disapprobation from various quarters. The chief points in the letters which have appeared are that some abstainers do good work, are very active and live to a good old age without alcohol; that alcohol is a fertile source of disease and crime; and that not only is total abstinence of much use to the individual who practices it, but that teetotal societies have already had much effect in diminishing drinking customs throughout the country. The first two of these points can hardly be ranked as objections to the article

in question, inasmuch as the writer tacitly admits them. The teetotallers who do good work belong chiefly, although there may be exception, to the writer's first class of abstainers, who, owing to a good digestion, have no need of alcohol and do not care for it. That alcohol is "a fruitful source of disease and crime,"is so obvious that no man in his senses will dream of disputing it; and the question at issue between the writer and his critics is really regarding the best means of diminishing drunkenness. While they would do it by teetotal societies and by legislative measures, interfering with the sale of alcoholic liquors, not only to drunkards but to the comunity in general, he would do it by confinement or punishment of the drunkards only.

The Journal continues as follows: While the article is, as we have already said, an exceedingly able one, and expresses views which are in the main correct, there are some points with which we cannot agree. While there are no doubt great numbers of men who are benefited by the moderate use of alcohol, taken, as the writer insists it should be, only at meal-times, the utility of alcohol is not nearly so universal as the writer would lead one to believe. Not only are there many men who do not require it, but there are many who are absolutely better without it. Their active digestion and abundant supply of nervous energy enable them to work to do their utmost, and the effect of alcohol taken by such men is either to disturb their digestion or to blunt the fine edge of their mental power. The writer also appears inclined to recommend the use of wines to enable delicate and fastidious children to take meat by sipping mouthfuls of claret or hock during the meal. This is a line of practice which we think unsafe, and we should be strongly inclined to recommend that alcohol in any shape or form should be eschewed altogether during childhood and youth, and only used very sparingly indeed before middle age, except in cases of acute disease.

We think, too, that the writer is too hard upon teetotal societies. Even if it be true that they only touch the evils of drunkenness in a very limited fashion, they have done, and still are, exerting an influence in the right direction. We are inclined to think that the writer overestimates, also, the evil they do by taking away alcohol from many who would be the better for its moderate use. There are, no doubt, some fanatical teetotallers who will not take alcohol in any form, however urgent may be the reasons for its use; but the great majority, when assured by a trustworthy medical man that, like Timothy, they must drink no longer water, but use a little wine for their stomach's sake, readily enough obey the injunction. Indeed, the difficulty which medical men have usually to meet is not that of forcing their patients to take alcohol, but of restricting the quantity, or cutting it off entirely, in cases where it is doing much harm. Even if we grant the writer's assumption that the great majority of people are the better for the moderate use of alcohol, we cannot but sympathize with the complaint of the poor woman that she could get her husband past three public houses, but could not get him past thirteen. Nor can we fail to observe that, in our large towns at least, the multiplication of public houses appears to be out of all proportion to the legitimate wants of the population. So much is this the case, that, if there were no other means of effecting their reduction, we should be inclined to ask, with the teetotallers, for legislative restrictions; but it is possible that a better way than this might be found. If the customers can be withdrawn elsewhere, the public houses will no longer pay, and their number will necessarily diminish.

Injection of Corrosive Sublimate into Localized Infections.—Vogt reports three cases of severe arthritis of the kneejoint that followed gonorrhœa and were treated at the surgical clinic of Greifswald by corrosive sublimate injection into the joint. He employed a solution of about two grains of the bichloride with fifteen grains of chloride of sodium in two ounces of water. Three to five small injections were made into different parts of the affected joint, so that about a

total of one-sixth grain of the bichloride was introduced. This procedure was repeated every third or fourth day. It is not stated for how long a period this was kept up. Vogt claims that his patients mended and could be considered cured. He employed massage as after-treatment.

In granulating osteitis and arthritis Vogt also employed these intra-articular injections and, so far as his experience goes, is of the opinion that much good may be so accomplished.

Ergot in Typhoid Fever.—In the Medical Review of August 30, a report on the successful treatment of typhoid fever with ergot at a French military hospital was given. We note since in the Centralblatt für Klin. Med., No. 34, that Dr. Kobert, of Strassburg, warns against such a procedure. Kobert claims that he has found a substance in ergot that he calls sphaceline acid. This, he says, produces intestinal lesion similar to that found in abdominal typhoid. For this reason he advises against such treatment.

Meningitis Tuberculosa in Infants.—In the Jahrb. f. Kinderheilkunde, fifty-two cases of tubercular meningitis that came under observation at the Strassburg Children's Clinic are reviewed.

The following are some of the conclusions arrived at:

1. The sexes are equally prone to meningitis tuberculosa.

2. Cheesy glandular swellings about the throat and the mediastinal spaces are most frequently the precursors of tubercular meningitis.

3. Whooping cough and measles are followed by tuberculosis and often in children of apparently rugged constitution, that have no hereditary taint.

4. Fever, of an atypic character, however, always attends the trouble.

5. In twenty-six cases there were three that had no spinal meningitis. Hyperæsthesia of the lower extremities, and of the belly, opisthotonus, ischuria paradoxa, are associated with spinal meningitis. The absence of these symptoms, however, does not exclude spinal mischief.

6. Tubercles of the brain are generally latent in their development. Only on rapid and extensive growth are symptoms developed.

7. Tubercles of the chorioidea verify the diagnosis of tubercular meningitis. They were found only four times in twenty-seven cases and then only at an advanced stage of the disease. Therefore, the ophthalmoscopic examination may in a majority of cases be of no value as to the diagnosis. Papillitis is sometimes found in meningitis.

Operation of Empyema in Children.—In the Revue Mens. des Mal. de l'enfance the views of Dr. Saint-Germain and Mercier regarding the indications and methods of operation for empyema in children are laid down. They are inclined to recommend intercostal incision in preference to puncture and aspiration, on the ground that this method is attended by less danger and is much more effective. They say that the circumstance of the entrance of air into the pleural cavity is not to be feared. On the contrary, the free accession of air is regarded of less danger, than the establishment of a vacuum between lung and thorax, as must ensue in aspirating. This vacuum necessarily leads to congestion of the lung, and renewed transudation and exudation must follow.

Not alone in empyema but in serous and sero-fibrinous exudations the incision is deemed the better operative measure; however, in the latter conditions the operation should be restricted and carried out only when positively demanded by the exigencies of the case.

The operation is to be made by first puncturing the thorax in the fifth intercostal space at the point of junction of the anterior and middle thirds of the ribs; then a grooved director is to be inserted and upon it an incision made of an inch or more in length. The flow of the escaping fluid may be regulated by the finger. An injection of a solution of

boric acid and insertion of several drains completes the work.

THE DELETERIOUS ACTION OF CHLORATE OF POTASH UPON THE BLOOD.—Since Marchand made his observations Edlefsen (Centralblatt f. Klin. Med.)also experimented with chlorate of potash upon blood withdrawn from the body and extended his research to the determination of the action of the salt upon blood in circulation. E. finds that if the blood is kept abundantly supplied with oxygen, i. e., if there is no respiratory interference, then the change of the hemoglobin into methemoglobin is slow. That is to say, the poisonous influence of the salt is not so great if a complete decarbonization of the blood is possible. This makes it very evident how dangerous the exhibition of the salt proves to be in conditions of cyanosis, laryngeal stenosis, etc.

OVARIOTOMY IN A CHILD.—Duchamp reports in the Archives de Tocologie the case of a girl eight years of age, that presented a round tumor situated to the left of the umbilicus; it showed indefined fluctuation and was exceedingly mobile. The rapidity of its growth and the disturbed general condition prompted laparotomy. The tumor was found to be a glandular multilocular cystoma of the left ovary with a long pedicle. This was ligated, cauterized by the Paquelin and dropped. Complete recovery without fever followed.

EXTRA-UTERINE PREGNANCY OF SEVEN YEARS DURATION.—In Progrès Médical Notta details the following: A woman, 40 years of age, was seized with vomiting of faecal masses; complete retardation of discharge per anum. A tumor was situated in the right iliac region, mobile; this tumor existed for seven years, since a time when the woman considered herself pregnant. Laparotomy was made. The abdominal walls were adherent to the tumor, which was spherical. The tumor was bursted at several points and discharged a fatty and sanguineous fluid. There was no pedicle and the removal was easily accomplished. A part, adherent to the intestines, could not be removed. In the right fossa iliaca the small intestine was constricted by an adhesion; this was corrected. Death ensued two days after. At the autopsy no peritonitis was found; however another constriction of the ilenm in the neighborhood of the valvula Bauhini. This brought about the fatal termination. To the right of the uterus was a cystic pocket, the capsule of the cystic tumor. The left Fallopian tube was doubled upon itself and adherent to the uterus. Within the cystic tumor, that was removed, a cheesy mass was found; only the skeleton of the fetus was intact.

SYPHILITIC REINFECTION.—The mooted question whether syphilis may be acquired a second time or oftener by the same individual is set forth at length by J. E. Güntz in Schmidt's Jahrbücher.

He cites a case reported in the Vjrschr f. Dermatol.u.Syph. x.1883,that occurred atNeisser's clinic in Breslau. A robust man, 34 years of age had a chancre with suppuration of inguinal glands in 1873; no syphilis was then found. In 1874 he had a roseola papulosa and lymphatic indurations, but no primary sore or scar was visible. Prof. Kœbner ordered him a course of inunctions and iodide of potassium. He improved rapidly and gained weight. In 1875 his wife gave birth to a boy that still lives, but is rachitic. In 1876 a girl was born that died of gastro-intestinal catarrh, when eleven weeks old. In 1877 and 1879 boys were born that are living in robust health. Thereafter the wife was in poor health and aborted twice during 1880. The second miscarriage was followed by uterine hemorrhage and pelvic inflammation, obliging the patient to take to her bed for four months continuously. No symptoms of syphilis were presented by her. In September 1882 the husband came to the policlinic with an ulcer of the penis that developed after sexual intercourse with a prostitute eight weeks previously. The ulcer was a typical, indurated, erosive chancre. The inguinal glands were already indurated, likewise the cubital gland on both sides and several of the cervical

glands. Some roseolar spots were already visible and a few days after a distinct papulose exanthema covered the skin. The pharynx was reddened and subsequently patches developed on the fauces. The diagnosis of syphilis was incontestable; it was an instance of reinfection within nine years. Prof. Isidor Neumann, of Vienna (Wien. Med. Presse, xxv, 1884) writes concerning reinfection and calls attention to its extreme rarity. Thus Ricord, v. Sigmund, Bærensprung and Fournier never saw a case, notwithstanding their wide field of observation. And Diday, of Lyons, who reports twenty cases of reinfection, admits that in one half of them he found only what he deemed primary indurations but no consecutive syphilitic symptom. Such cases, says Neumann, are nothing but soft chancres that develop on a syphilitic basis and become indurated, grow and then heal, leaving a cartilaginous hardness. This may exist for months and no consecutive syphilis follows. He refers to a case that came under his observation in which such an induration existed for four months and no consecutive symptoms developed. Even balanitis in a syphilitic may bring about a cartilaginous induration about the corona glandis. The so-called Clerc's ulcer has the same clinical significance. This is produced when a person, either in the florid or latent stage of syphilis, is inoculated with secretion from a syphilitic ulcer of another individual. Such inoculation generally leads to an ulcer that is very persistent and usually becomes indurated. Such Clerc's ulcers may even develop by the sexual intercourse of syphilitics. The glands in the neighborhood may become indurated and thus a repeated infection seem accomplished, when in reality we have nothing more than a purely local manifestation in individuals already syphilitic.

Again, says Neumann, in some syphilitic cases there may be one or more gummous tumors about the glans or at the prepuce that break down and then sclerose, forming an induration of great persistency and akin to a primary sclerosis. This is the pseudo-chancre induré of Fournier. Further, says Neumann, any lesions to the male genitals may be attended with considerable exudation on account of the great lymphatic vascularity; and in cases of tight prepuce congestion may bring about hardness and induration of tissue.

However, Neumann is of the opinion that a second infection may take place. The clinical observations of such eminent syphilidologists as Diday, Zeissl, Koebner, Hutchinson, Bergh, Bæumler and others assure this as a fact. But the true reinfection, i. e., a true sclerosis with consecutive, general luetic affection, is of exceeding infrequent occurrence, Neumann draws a comparison with the acute exanthemata, for instance small-pox, in which generally one attack affords a certain immunity against further ones. It is well known that in small-pox a certain scale of safety so given exists, in that some persons are rendered absolutely proof by one attack, yea by successful vaccination alone; others again are so susceptible that a series of attacks of true variola may be sustained.

The Chicago Colleges.—Activity is already declared in connection with the Medical Colleges of Chicago in beginning their winter work. The Rush College has, we understand, made no change in their regular faculty. For clinical work they will, in addition to their previous facilities, have at their disposal the charity patients which are admitted to the Presbyterian Hospital. Situated as it is in close proximity to the county hospital, there cannot be a lack of clinical material, and we doubt not that it will be judiciously developed. We find from the announcement that the faculty offer a "certificate of honor" for those who attend three full winter terms and one spring term. We are led to infer that this certificate is awarded independent of any other merit. Such a course we should say is of very questionable propriety, and while such a certificate may be appreciated by those who do not merit it, the lack of satisfaction with which those who really work successfully will look upon it will render it valueless. The introductory address is to be delivered by Prof. H. M. Lyman on Tuesday evening, the twenty-third inst.

The College of Physicians and Surgeons, which has so lately sprung into existence with an hitherto unparalleled numerical success, is also situated in the immediate neighborhood of Cook County Hospital. If the same energy is displayed in thoroughly equipping their students for work which must have been exerted in securing the numbers with which they have hitherto been favored,they will not fail in sustaining their already acquired success. Prof. W. E. Quine will deliver the introductory address which will also take place on the twenty-third inst.

The Chicago Medical College commences the second quarter of a century of its existence. It has always advocated the graded system of teaching and constitutes the Medical Department of the Northwestern University at Evanstan. Some few changes have been made among the professors for the coming session. Dr. Jewel has retired, still retaining the title of Emeritus Professor. Drs. Boler and Curtis are on leave of absence, and their places are supplied by Drs.W.W.Jaggard and F. Johnson. Dr. H. Gradle has resigned the chair of physiology, and is succeeded by Dr. W. B. Bishop. Dr. Walter Hay takes the chair of Nervous and Mental Diseases,to which that of Medical Jurisprudence has been added. Dr. Hay has also become executive officer of the college in place of Dr. Curtis, who is Europe.

TheWoman's Medical College will have already begun its course before this appears. It will continue some thirty-one weeks; it has only one session. Three courses of lectures are advised ,but students are allowed to graduate on a two years' course, provided they present a certificate of three years' study. The Hospital for Women and Children is especially available for the students. We are safe in saying that Chicago affords facilities for the study of medicine for women which are not surpassed by any city in America. Dr. Plim Hayes has retired from the chair of chemistry and Dr. S. H. Salisbury takes his place.

The rapid growth of Chicago will as rapidly increase her facilities for the elucidation of the various branches of medicine and the simple desire for eminence on the part of the professors,the competition among the colleges. Let us hope the good sense of the more intelligent students and the unceasing efforts of the Board of Health will prevent those who, in any way check the progress of medical education, not only from gaining a foothold in the circle of education, but will crowd out those already in possession,who fail to the the mark.

Dr. Balfour is said to have drank copiously and intentionally of the water in which Dr. Wier, of Bombay, had demonstrated the "cholera-bacillus." The experiment is said to have been negative in its results. Of course this proves nothing except this: Supposing the "comma-bacillus" or "cholera-bacillurs" to be the principal agent in cholera, and that in the water that Dr. Balfour drank there were contained a sufficient number of them to develop the disease in some cases, the alimentary canal of Dr. Balfour did not constitute a favorable soil.

Important Decision.—The following question has been decided in the English Court. A. rents a house of B. that is at present occupied by C. Before C. vacated the apartment a case of infectious disease developed in the house. A. refused to occupy it on the grounds that it was uninhabitable, and the court sustained him.

Antiseptics and the Comma- or Cholera-Bacillus.—When we learn that the organism supposed to be the active agent in cholera is a good deal smaller than the bacillus of tuberculosis, investigation for their presence, as a guide in practice, is at present out of the question. The size of the organism as given by Koch is one-half or at most two-thirds the length of the bacillus of tuberculosis, but much thicker. The optical appliances necessary for their demonstration are a one-twelfth inch objective and an Abbe's condenser. One very interesting part of Koch's communication consists of his study of the relation of these organisms to various substances. It is very

manifest in all Koch's proceedings that he expects but very little from the use of such solutions as are commonly called germicidal, in the way of prevention. We quote the following from the British Medical Journal as that part of his speech before the Imperial German Board of Health bearing on this point. After discussing the various processes of culture for the favorable development of the organism, he says:

In these cultivation-experiments, it was further seen that the nutritive substance—at least, the gelatine and meat-broth—must not be acid. As soon as the gelatine shows only a trace of acid reaction, the growth of the comma-bacilli is very stunted. If the reaction be in a marked degree acid, the development of the bacilli completely ceases. It is at the same time noteworthy that it is not all acids that seem to be unfavorable to the comma-bacilli; for the surface of a boiled potato, where it is cut, is known to have an acid reaction, in consequence, if I am not mistaken, of its containing malic acid. Nevertheless, comma-bacilli grow very luxuriantly on potatoes. Hence, one cannot say, straight off, that all acids hinder the growth; but, in any case, there are a number of acids which have this effect. In meat-broth it is probably lactic acid, or an acid phosphate.

As the influence of substances that prevent the development of the growth of comma-bacilli is one of no small interest, a number of other substances have been examined with regard to this point. I must observe here that the prevention of development does not imply disinfection. In these experiments, it is only intended to determine that amount of a substance which is sufficient to hinder the growth of the bacteria. But with this the bacteria are by no means killed outright, as should be done in disinfection. We had experienced something similar in the experiments on the influence of carbonic acid on comma-bacilli, in which also the growth was restrained only as long as the carbonic acid was allowed to operate. The same holds for the statements which I now lay before you.

Iodine is known to have been characterized by Davaine as a very intense poison for bacteria, and, under certain circumstances, correctly so. Davaine made his experiments by diluting, to a very great extent, a liquid containing anthrax-bacilli, e. g., anthrax-blood, to such an extent, that he finally had nothing but pure water, in which very few anthrax-bacilli were suspended. He added some iodine to this liquid, and then it was seen that the anthrax-bacilli were killed by an extremely small quantity of iodine; but in practice the conditions are quite the reverse. We never have to stop the development of infectious matters in pure water, but in the alkaline contents of the intestine, or in the blood or in the juices of the tissues, and the iodine does not remain free in these, but combines at once with the alkalies. The investigation of the influence of iodine on the comma-bacilli was made by adding iodine-water in meat-broth, which was just suitable as a nutritive liquid. Iodine dissolves in water in the proportion of about 1 in 4,000. One cubic centimetre of this iodine-water was mixed with ten cubic centimetres of meat-broth, but this did not hinder the growth of the bacilli in the least; the limit at which iodine prevents the bacilli from developing must, therefore, lie far below the amount used in this experiment. But it seems to me unnecessary to make any more experiments on this point; as, in practice, larger quantities of iodine than this cannot be given.

Alcohol stops the development of comma-bacilli only when one part is added to ten parts of a nutritive fluid, i. e., in the proportion of ten per cent. This is a concentration which also cannot be practically utilized.

Common salt was used in the proportion of 2 per cent. without the growth of the comma-bacilli being hindered.

Sulphate of iron only hinders the growth when two per cent. is added to the nutritive fluid. In regard to this substance, which is very much used for purposes of disinfection in times of cholera, I venture to remind you that a proportion of two per cent. is necessary before it acts as a preventive to development. The comma-bacilli are not yet killed by the

sulphate of iron in this concentration. The property which sulphate of iron has of hindering the development of the bacilli is, perhaps, thus explained. The peptone and albuminates of the nutritive solution, which serves as food for the bacteria, are driven out; for, by adding two per cent. of sulphate of iron, an abundant precipitate is formed in the nutritive solution. Possibly, also, the acid reaction that takes place has a checking effect on the growth. Accordingly, this substance seems not to possess any specific effect on the bacteria, and certainly not to be a real material for killing or disinfection. I consider it indeed possible that, with such a substance, exactly the opposite of what is intended may be obtained. Given the case that the contents of a cesspool had to be disinfected, into which it was known that comma-bacilli had found their way; according to my view, the process of putrefaction that goes on of itself in the cesspool is sufficient to kill the comma-bacilli. But if sulphate of iron be added till there be acid reaction, and the process of putrefaction is thereby arrested, nothing else is obtained but cessation of the growth of the bacteria and of the comma-bacilli. The bacteria are by no means killed by this method; and, as for the comma-bacilli, they are removed from the influenceof the putrefaction-bacteria which are injurious to them, and are preserved instead of being destroyed.

This example is a very good one to show that the substances for disinfection must be correctly judged and examined precisely on this point, and that we have to distinguish between what only arrests putrefaction, and what really kills bacteria. The former may very possibly serve as a means of preserving infectious matters.

I will only mention the limit of the power other substances possess of arresting the development: alum, 1: 100; camphor, 1: 300. I had expected a stronger effect from camphor, but several careful experiments have shown that this substance possesses only a very slight influence on comma-bacilli. Carbolic acid, 1:400. This figure nearly agrees with what we know of the influence of carbolic acid on other bacteria. Peppermint oils, 1:2,000. Sulphate of copper, 1:2,500. This substance has a very powerful effect. But if we want to calculate how much sulphate of copper must be given in order to check the growth of the bacilli in the intestinal canal, we should arrive at quantities which could not be given to a human being. Quinine 1:5,000; and corrosive sublimate, which is here again seen to exceed all other substances in power, 1:100,000.

In these experiments on the influence of substances for arresting the development of comma-bacilli, the striking fact was evident that comma-bacilli die off extremely easy when dried. These experiments were made by letting a very small drop of a substance containing bacilli dry on an object glass, and a large supply of these object-glasses were immediately prepared for a series of experiments. A drop of the liquid which was to be examined was then placed upon such an object-glass, and left for development in the hollow object-holder. Having proceeded in this manner, in no single preparation did anything grow that had received meat-broth as nutritive fluid, nor in a striking manner in the test-preparations either. At first I did not know what caused the absence of growth, and thought that the broth must be the cause of it, for I had never met with anything like this before in the case of other bacteria. For instance, anthrax-bacilli can be kept in store for a long time dry on object-glasses; they retain vitality from half a week to nearly a whole week in this manner. As, however, the meat-broth on examination proved to be unexceptionable, we had to examine whether the comma-bacilli had not probably died off owing to being dried upon the object-glass. In order to obtain certainty on this point, the following experiment was made. A number of object-glasses were provided with a small drop of substance containing bacilli. The drop dried up in a few minutes. One object-glass was now diluted with a drop of meat-broth after an interval of a quarter of an hour, another after an interval of half an hour, another after an interval of an hour, and so on. Then it was seen (and

I made several series of experiments) that the comma-bacilli did come to development on the dried glass plates that had laid a quarter, a half, and a whole hour, but after two hours they sometimes died off; after three hours I could not keep the bacilli alive in these experiments. Only when compact masses of bacilli-cultivations—for instance, when the pappy substance of a cultivation made on potatoes was dried—did the bacilli retain vitality for a longer time; clearly because in this case complete desiccation followed much later. But, also, under these conditions I have never succeeded in preserving the bacilli alive in a dried state longer than twenty-four hours.

Necessary Food Rations.—While we do not for one moment suppose it desirable or possible to induce men generally to confine themselves in their diet to the absolute essentials of existence as far as foods are concerned, yet it certainly is desirable to know, as accurately as possible, how the human organism comports itself when placed on such rations as science by calculations considers necessary for the sustenance of the animal organism in the performance of its normal functions. By patiently studying the relation between food and a proper discharge of one's functions we shall be in a better position to study effectually the modifications required during any perturbation of the same. In order to study systematically and unitedly the question, Professor Panum, of Copenhagen, presented to the International Congress the following propositions:

1. An endeavor should be made to obtain information, as complete as possible, as to the food-rations of healthy, or comparatively healthy individuals, in hospitals, infirmaries, and prisons, and of the soldiers and sailors of different countries.

2. An attempt should also be made to obtain, by like information, with the assistance of the administrative officers of the hospitals of different countries, comparative tables of the quantites of albuminoid substances, etc., contained in the rations of different kinds as arranged in the sick dietary, with the various forms of employment of the one or the other of these varieties of food-rations in the hospitals.

3. It would be necessary at the same time to know (a) if the persons fed according to a given rule, did or did not receive any addition, calculated for or not calculated for, measurable or not measurable, of any nourishment whatever, over and above the regulated rations; (b) if the distribution of the food-rations was so exact that there were no remains from which the officials could draw a fraudulent profit, and if the distribution was as fair and equal as possible, and if the food of the officials was prepared in other kitchens than those of the inmates.

4. Information should be obtained as to the system adopted for supervising (a) the good quality of the ingredients of the rations; and (b) their preparation and distribution.

5. It is important to insist upon the necessity of giving medical men full liberty to regulate in the hospitals the quantities, absolute and relative, of the albuminoid substances, fat, and hydrocarbons, which the food-rations of the sick should contain, without being interfered with either by rules or by the management.

6. The publication of cookery-books written for the sick should be encouraged. These books, he said, ought to be suitable to the habits of the country, and to set forth the doses of albuminoid substances, of fat, and of hydrocarbons, which the different dishes contained, just as the doses of medicines were regulated in the pharmacopœias.

7. Medical men should be careful to hang up on the walls of their consulting-rooms a graphic table, showing the quantitative composition of the ordinary foods, after the model of that of Kœnig, so as to continually recall to their minds the importance of a rational dietetic regimen, and to facilitate its prescription.

8. Those who busied themselves with popular hygiene, and who were capable of discharging the work, should charge themselves with the preparation and with the rational

composition of a dietary, sufficient, and as cheap as possible, which should better the condition of the poor.

Professor Panum, in conclusion, expressed the desire which he had to see the formation of an international association of some of the colleges of different countries, with the purpose of originating a propaganda for the application of the physiology of human alimentation to practical medicine and to hygiene, and of working, at the same time, in the interests of science.

Dr. Martin, whose experience gave us the Martin bandage, says: He had been accustomed to say that within fifty years the Listerian method would be an exploded delusion; since, however, he has seen Sir Joseph himself and observed his methods he reduces the period to twenty-five years.

Hypodermic Injection of Osmic Acid—A. Eulenburg reports on twelve cases of hypodermic injection of osmic acid. The amount he injects at a time is 0.05 gramme. The solution used is never greater than 1 per cent, but the dose is repeated sometimes as often as fourteen times. It is desirable to pass the injection as nearly as possible in the immediate neighborhood of the affected nerve. Of the twelve cases of different forms of neuralgia, three were cured, four improved. The other cases were of long standing and were not improved.

Contribution to the Study of the Sympathetic.—H. Nieden has contributed to the Centr. Bl. f. pr. Augelheilkunde a case of considerable interest relative to a circumscribed region of the sympathetic system. He succeeded in getting a sphygmographic tracing of the temporal artery which was affected by the paralysis of the sympathetic in that region. This according to Mœbius of Leipzig, is the first time that the sphygmographic tracings of an artery so affected has been taken. The condition of the pupil under such circumstances is that of contraction but Nieden succeeded by means of electricity in effecting a temporary dilation. The case is as follows: A man 51 years old had been for six days, in the month of August, attending to the firing department of a steamer. On taking a cold plunge to relieve himself of the heat a peculiar shock was experienced in the right temporal region. He felt forthwith a dead pressure in the same region and observed that sensation was less marked than on the other side and on looking into the glass he saw that the integument was white. The unpleasant feeling of the absence of sensation increased and seemed as though a foreign body lay beneath the integument. After a few days it was observed that the palpebral fissure of the right side as well as the right pupil was smaller than on the other side; moreover, an absence of the function of perspiration of the right side was observed. After a period of thirty days there was congestion of the conjunctiva, and the difference in the palpebral fissures and pupil was more marked, the reaction of the pupil was slower; there was hyperæmia of the fundus and a sense of backward traction in the body of the eye. On the application of a painful galvanic current to the neck the pupil of the affected eye dilated slowly to the size of the unaffected eye. The sensation of backward pressure in the eye seemed to modify the extent of movements. The function of the perspiratory glands in the right side of the brow and upper lid ceased. The sphygmographic tracings of the temporal artery on each side were taken. On the left side the curve was normal; the right side however showed the paralysis of the arterial tube; it swelled out with each beat of the pulse and then collapsed like a lifeless rubber tube.

Therapeutical measures—galvanization in the neck, diaphoresis, massage—availed but litlittle. The sensation in the forehead improved some; the sweat glands acted, but less efficiently than those of the other side; the palpebral fissure, and pupil became wider and the pulse became more normal. In general, after a period of nine months the condition as a whole remained similar to the first manifestation, only somewhat less pronounced.

VINEGAR IN POST-PARTUM HEMORRHAGE.—Frequently have we heard of the service which vinegar has rendered when injected into the cavity of a non-contracting uterus; according to the experience of some of the profession it is for that purpose preferable to many other agents. Dr. W. C. Grigg, in British Med. Journal, Jan. 12, thus describes his experience with it as an article for internal administration:

"About ten years since, I attended a patient who had most violent post-partum hemorrhage, so severe, indeed, that I began to despair of arresting it. I had no ergot with me, and ice was not procurable. I directed the attendant to give a wineglassful of pure brandy. The uterus, which was before flaccid, contracted instantaneously under my hand, and the bleeding ceased. On proceeding to give some more brandy, I discovered that the patient had been given vinegar instead of brandy. The effect was so marked, that I inquired of the old midwife who was with me, whether she had ever heard of vinegar being used before; she informed me that in her part of the country it was considered an excellent remedy, but that she rarely, if ever, used it. When lecturing to a class of pupil-midwives shortly afterward I mentioned the case, and advised them most strongly to give the vinegar a trial in case of need. It seems to have escaped my memory until, about two years ago, the midwife at Queen Charlotte's Lying-in Hospital reminded me of my recommendation, and told me she had given vinegar repeated trials, and preferred it to ergot on account of its certain and instantaneous action. She was such a reliable and clever midwife, that I felt that her testimony might be taken. Since then I have carefully questioned all my pupil-midwives as to its action, for until recently it was never used in the hospital. They all agree that in their cases of hemorrhage in the out-patient department, where they were allowed to use vinegar, hemorrhage was arrested more quickly than in the hospital with ergot. It was not until recently that I had a good test-case; the patient belonged to a family of "flooders"; her mother and two of her near relations had bled to death. As soon as the child was born, she began to flood. I expelled the placenta, and gave a wineglassful of vinegar. The uterus, which was very flaccid, and constantly dilating, at once contracted firmly under my hand; it did not again relax, although the hemorrhage continued to a moderate extent. At the end of fifteen minutes I gave a second dose, about two-thirds of a wineglassful. In both instances it was given pure without any water. This soon arrested the hemorrhage, and the patient did well. I used no other means beyond holding the uterus, as I was perfectly well satisfied with the result. I feel certain that I should not have obtained such favorable results with ergot. The action of vinegar is so rapid, that I refrain from using it or permitting its use before the placenta is expelled, for fear of causing a retention of that body and making its removal difficult. From my own experience, and from the reports obtained from my midwives, pupil-midwives, and house-surgeons, I can confidently recommend the use of vinegar in post-partum hemorrhage. It is a remedy, if not always at hand, at any moment procurable, simple and harmless, not open to the objections against ergot, which in the hands of midwives is very liable to be used to hasten delivery, nor to the serious disadvantage and dangers of intra-uterine injections. If further trials, on a more extended scale, confirm my experience, I have no hesitation in saying that vinegar will have to be regarded almost as the specific for post-partum hemorrhage."

—MISSISSIPPI VALLEY MEDICAL SOCIETY.—In addition to the special rates secured for members of the Mississipdi Valley Medical Society attending the annual meeting at Springfield; Ill., on the 23d—26th insts., over the lines named in our last issue, the publishers of the REVIEW have secured a reduction over the Louisville and Nashville Railroad. Members returning from the meeting over that line may obtain, upon presentation of certificates of attendance, return tickets at the rate of one cent a mile; but the special rate applies only from East St. Louis, Ashley and Evansville.

CONTRIBUTIONS.

CLINICAL LECTURES ON SOME COMMONLY OBSERVED FORMS OF CARDIAC DISEASE.

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Delivered at the New York Post-Graduate Medical School, August 19, 1884.

CASE I.—SIMPLE NEUROSAL PALPITATION.

GENTLEMEN:—The patient before us this morning is Anna M., aged 18, unmarried, and a servant employed in one of the large hotels of this city. On questioning her in regard to her complaint she states at once that she has heart disease. She informs us that she has frequent attacks of violent beating and fluttering of her heart. During the attacks her heart beats with such force as to be distinctly audible to herself, especially when she lies on her left side. At the same time she has the following subjective symptoms, viz., faintness, vertigo, cephalalgia, ringing in the ears, clammy coldness of the extremities, great præcordial distress and a feeling of impending death. The least excitement is sufficient to establish a sequential palpitation, but the attacks often come on at night when she is asleep and oblige her to get up and walk around the room in order to obtain relief.

She had a very severe onset this morning, which continues yet with somewhat abated violence. Her appetite is fair though she has occasional spells of indigestion; there is no cough, no cyanosis, no œdema about the ankles, and no dyspnœa except at the height of an attack when a long inspiration causes a severe darting pain in the præcordial region. You will notice that her countenance is pale and anxious, though there are no signs of emaciation. The radial pulse is quick, sudden, and over-forcible.

We now come to the physical examination of the heart, a step which should by no means be neglected in these cases. On inspection, we see that the apex-beat is in the normal situation in the fifth intercostal space, but it is too extensively visible. We notice a very perceptible vibration imparted to the chest at each impulse. The force of the heart is evidently far above the par of health.

Palpation confirms inspection and we observe that the apex-beat imparts the sensation of a blow to the hand. On percussion we find the heart to be of natural size. On auscultation the first sound is found to be too loud and clear at the apex and somewhat abrupt and short. The second sound is low-pitched and lacking in the ticking quality which characterizes this sound. We discern a well-marked reduplication of this sound over the entire basic area.

The symptoms which present themselves in this case, with the absence of the physical signs of organic disease, taken *le tout ensemble*, render it fair to pronounce it a case of simple palpitation, probably of nervous origin. If there are any anatomical changes present they are probably confined to the intrinsic motor centres or to the sympathetic supplying cords. About the best definition of this condition with which I am acquainted is the somewhat antiquated one by Hope, viz: "Palpitation in general may be defined to be an increase in either the force or frequency, or in both the force and frequency of the heart's contraction, by which they become not only perceptible, but sometimes very troublesome to the patient."

In the treatment of cardiac palpitation it is of primary importance to seek the cause, and, if possible, remove it. By questioning this patient closely we learn that she is addicted to the habit of drinking large draughts of tea daily and that her occupation keeps her within doors in a rather close atmosphere the entire day. She also admits that she laces perhaps a little too tightly. After this information it is not to be wondered at when she says she is of an extremely nervous temperament. Her trouble seems to be entirely independent of any ovarian or menstrual derangement, but we have discovered ample causes for cardiac palpitation. Which of them are operative in this case it would, of course, be impossible to say, but we may strike at the root of the evil by advising a discontinuance of the pernicious habits, and a certain amount of exercise in the open air every day. This will, no doubt, exert a favorable influence over her nervons disposition.

Although her attacks come and go at irregular periods, and one attack often persists for several days, the disease is essentially paroxysmal and the medicinal measures resolve themselves into the treatment, first, of the paroxysms, and, second of the interval.

We may lessen the intensity and shorten the duration of the attacks by one of the antispasmodics, as musk, asafœtida or valerian, by diffussible stimulants, of which ammonia and the ethers may be mentioned; or by nar-

cotics and sedatives, of which opium, hyoscyamus, hydrocyanic acid and the bromides may be taken as fair representatives. Recently I have been prescribing the following not overpalatable formula with excellent results:

℞ Spiritus Aetheris comp. ℥i
Tincturæ Asafœtidæ, - ℥iss
Potassii Bromidi - - ℥iv
Aquæ Destillatæ q.s. ad, - ℥iv

M. Sig. Teaspoonful occasionally during the attacks.

If anæmia exists a ferruginous preparation should be given. The action of digitalis in cases of inorganic palpitation is problematical. If the heart is feeble and intermitting it may perhaps be of benefit. In the interval we would recommend a regular life, careful diet, avoidance of excesses, etc. A few drops of dilute hydrocyanic acid, or the tincture of belladonna may be given after meals, or a belladonna plaster may be worn over the heart. A cold shower bath in the morning is a valuable adjunct to the treatment. A very important point is to reassure the patient.

This young girl comes to us this morning possessed with the firm belief that she has serious heart trouble and that her life is in imminent danger.

Fothergill has truly said "when nervous palpitation alarms the patient it is apt to perpetuate itself." Hence, we should advise the patient that there is no danger to life, though the trouble may persist for some time in spite of treatment.

Case II.—Static or Non-Progressive Valvulitis.

This patient, gentlemen, is T. C., 44 years of age, a broad-shouldered, stoutly built mechanic. He came under my observation first a short time since at Dr. S. S. Burt's clinic in the out-door department of Bellevue Hospital. He presented himself there to be treated for "chills." He stated that several times daily he felt an indefinable cold sensation beginning in his feet and extending over his entire body. During these spells he shivered visibly but they were not followed by fever. In addition he complained of a severe pain in the medio-dorsal region about the level of the inferior angles of the scapulæ. He was examined carefully, given a belladonna plaster for the pain in his back, a placebo for his ambiguous chills, and in accordance with my request reports here at the college this morning. He assures us that the pain has disappeared entirely from his back and that the severity of the chilly sensations is greatly ameliorated. When I question him closely I find that his appetite is good, bowels regular; he has no cough, no dyspnœa, no cardiac palpitation, and is able to perform all the heavy duties incident to his occupation with no further inconvenience than to occasionally, "take a long breath." He had an attack of articular rheumatism 18 years ago. For two or three years after this attack he had attacks of palpitation of the heart occasionally but they gradually disappeared and have not since troubled him. On physical examination we find him to be splendidly developed, and he has the appearance of perfect health. No evidence of disease exists in his lungs. Inspection and palpation yield negative results save the fact that the apex seems to extend a little lower and a little to the left of the normal situation.

The left ventricle is probably slightly hypertrophied. On applying the stethoscope over the heart a very distant murmer is discernible. Its maximum intensity is at the base and to the right of the sternum. It may also be heard down along the median line for several inches and over the common carotid artery. It is synchronous with and masks the first sound of the heart.

I need hardly inform you that this is an aortic direct murmur and that in all probability it indicates stenosis or constriction of the aortic orifice which originated in the rheumatic attack which the patient had eighteen years ago. According to Bichat the lining membrane of the heart approximates closely in character to serous membranes; the valves therefore may be said to consist of fibroserous tissue. Now, fibrous tissue in general is remarkable for its proneness to degeneration, calcareous, osseous, cartilaginous, etc., and to the chronic character of the inflammatory attacks to which it is subject.

Whence we derive an explanation of the fact that the valves and orifices of the heart are frequently affected with disease, while the cavities where they are invested solely by the lining membrane are in a great measure exempt. It is reasonable to infer that at the time this patient had the spell of articular rheumatism, he had an attack of endocarditis. As a result of this inflammation there was a hyperplasia of young cells in the fibrous tissue of the valve curtains, chordæ tendinæ, or the musculi papillares. The inflammation, of course, subsided within a brief period, leaving the non-fibrous portion of the membrane as sound as ever, but the cell elements remained and, as we can readily conceive, became converted into connective tissue.

We are well aware that the inherent tendency of connective tissue is to contract. Hence, by the contraction of this tissue the valves have become shrunken and rigid, or

perhaps they have become adherent to each other. Or, it may be that the inflammatory attack roughened the valves in such a manner as to favor the deposit of fibrin from the blood, which, together with the exudation from the endocardium itself, has resulted in the formation of vegetations on the valves which obstruct the free exit of blood from the left ventricle into the aorta. It is in one of these ways that a large proportion of valvular lesions is established. In the case before us the changes which were produced were not sufficient to cause a serious retardation of the blood-current. There is probably just enough hypertrophy of the left ventricle to countervail the obstruction at the aortic ostium, and for this reason has remained non-progressive and innocuous for eighteen years. The term "static valvulitis" employed by Fothergill is peculiarly applicable to this case. The man has organic disease of the heart, but it causes him no inconvenience and gives rise to no symptoms.

A striking contrast to the case of simple palpitation which has just left us! This case is but a type of the large number which is constantly met with in practice. It has been my fortune to witness a number of autopsies in which valvular lesions were discovered that had not been suspected during life. One case in particular I recall to my mind at this moment. In an autopsy held by me at the mortuary of the City Alms House in the autumn of 1880, on the person of an old lady over 85 years of age, the hydrostatic test showed complete aortic regurgitation and marked insufficiency of the mitral valves, though the patient had never complained of her heart during life. The cause of death was chronic diarrhœa. Such a lesion is said to be mute or latent; that is, has been perfectly compensated and has never asserted itself as a disease from the fact that the compensation has never been ruptured.

For the reason that it is ever possible for such a lesion to advance, and that a paralytic stroke is always a possible contingency, from the detachment of emboli, it places a patient in an unenviable position, though it by no means destroys his usefulness, even if he leads a toilsome and laborious life.

As to the treatment of this case, we may say that it is almost *nil*. We can advise him to return to his work, avoiding needless violent exercise and excitement of course, feeling quite confident that many years of usefulness and happiness may yet await him.

Case III.—Static Valvular Inflammation with Loss of Compensation after Probably Thirty Years Standing.

The next patient, gentlemen, is John M., aged 49, an operative in a millstone factory. He gives the following history:

When sixteen years of age he had a sharp attack of acute rheumatism in his joints which laid him up for several weeks. It was called by the physician in attendance "inflammatory rheumatism." From that time until three years ago he had no illness worthy of note. In February, 1881, he noticed that he became short of breath after walking up a flight or two of stairs. Within a month or two a cough was developed, during the course of which he expectorated blood occasionally. All of these symptoms gradually disappeared under treatment. The attacks have been repeated several times within the past three years, but have always yielded kindly to the remedies which have been addressed to them. He comes to us this morning to be treated for an attack which he considers a little more severe than any of its predecessors. He complains of a cough, dyspnœa on exertion, orthopnœa, occasional attacks of palpitation. Almost constant pain and uneasiness in the præcardial region, and a sense of heaviness in the right hypochondrium. His cough is attended by a copious muco-serous expectoration which amounts almost to a bronchorrhœa. When I ask him to cough forcibly and expectorate, we notice that the matter expectorated is flecked with blood. He says there is no swelling of his feet, but when I direct him to remove his shoes and stockings and make firm pressure along the line of the tibia and over the malleoli it causes a very decided pitting, clearly indicative of serous transudation. Probably it will be much more marked towards evening, especially if he remains much on his feet during the day. The general appearance of the patient is good; he is quite well preserved; there is no appearance of cyanosis about his face or lips, though the ends of his fingers are a little turgescent, and the superficial veins of the neck are slightly distended. When I count his pulse I find it beating at the rate of 89 per minute; very small and intermitting. These symptoms point to cardial trouble and we will proceed to examine that organ.

Inspection of the præcardial region is negative, but "many an impulse can be felt that can not be seen." When I place my hand over the heart the truth of this axiom is demonstrated.

There is present in this case a distinct diastolic thrill, the *fremissement cataire* of Laennec, which is of considerable significance, as we shall see. On auscultation we find a loud, prolonged murmur extending through the

diastolic period and terminating abruptly at the beginning of systole. It is heard most distinctly in the space between the apex and the sternum and is inaudible two inches from this point in any direction. Both the thrill and the murmur are increased in intensity when I ask the patient to walk rapidly around the room a few times. After hearing the murmur we can at once explain the cause of the thrill. It is undoubtedly due to constriction at the left auriculo-ventricular orifice and is probably produced by the current of blood being agitated, or thrown into eddies in passing from the left auricle into the left ventricle. We are safe in pronouncing this a case of mitral stenosis. It does not differ in its essential points from the case I last showed you. Like it, it probably had its origin in a rheumatic attack, but in this case the endocardial inflammation left its impress on the mitral, instead of the aortic valves. Again, it resembles the preceding case from the fact that it remained latent for a long period—for thirty years—before it manifested itself. The symptoms which were inaugurated three years ago, and which signify a disturbance of the harmonious relations of the lesion and the compensatory hypertrophy were doubtless induced by the very heavy work to which he was assigned in the factory about that time. These symptoms show dilatation of the left auricle and damming back of the blood through the pulmonary veins upon the lungs, thence through the pulmonary artery upon the right venrticle, right auricle and the systemic circulation. In this way we can account for the cough; the œdema of the lower extremities and the congestion of the liver, causing the sensation of weight in the right hypochondrium. This is a case which offers much for treatment. The symptoms, though great, may be overcome by judicious treatment and kept in abeyance for perhaps a number of years. We would advise the patient to cease work altogether for a few weeks and then to seek lighter employment. His habits of life must be governed by prudence and moderation. He must take a certain amount of out-door excercise (not active and violent), observe a nutritious regimen and avoid excitement. The object is in every way to strengthen and invigorate the system. The irregularity and feebleness of the heart's action calls for treatment. In regard to the time-honored digitalis Prof. Flint says: "It is an invalvuable remedy, regulating the heart's action without diminishing, but on the contrary increasing, the force of the ventricular contractions." This patient should take a teaspoonful of the freshly prepared infusion of the English leaves, at least four times a day. It may be discontinued when the good effects have been obtained as noticed by the diminution or arrest of the cough, hæmoptysis and œdema, resuming it according to the indications.

A fluid extract obtained from the flower of the *convallaria maialis* (lily of the valley) has recently been suggested as a reliable substitute for digitalis as a heart tonic with the advantage of not producing the gastric irritation sometimes brought about by a long course of digitalis. My experience with it is limited to two cases, in one of which, in doses of gtt. xxx t. i. d. it slowed the heart's action and seems to act beneficially. The other case was too far advanced to serve as a test. For the dyspnœa of which he complains dry cups may be applied, or a few drops of Hoffman's anodyne, or an occasional tablespoonful of brandy taken pure may be given. Tonics, of course, should be persevered in; a very valuable and elegant preparation is an elixir compound of calisaya bark and the tincture of the chloride of iron, a tablespoonful of which represents five grains of calisaya and five drops of the tincture.

This will probably meet the indications in this case. Of course such contingencies as anæmia, indigestion, ascites, etc., which are always possible in such cases, should be looked out for and treated *ab initio*.

Case IV.—Primary Progressive Valvulitis.

This little girl is Ellen D., aged fourteen. You will be impressed at once with her wan and delicate appearance. She has been under observation for a number of weeks past and ample opportunity has been afforded to watch the progress of her case. The history she gives is of a rather negative character. Her mother informs us that she never had rheumatism, but she has had a number of the diseases incident to childhood, such as scarlatina, measles, whooping cough, etc.

Last spring she was ill for a few days with what was called malarial fever. Some time after this she began to suffer with pain and uneasiness in the left side, shortness of breath, cough, etc. She would get blue in the face and out of breath when she went up stairs. It was for these symptoms that she first applied for treatment on the 17th of June. She was examined, put under treatment and for a time seemed to be somewhat improved; but the improvement was of short duration.

More recently the cough has become exaggerated, she expectorates blood, her feet and ankles have begun to swell, an obstinate diar-

rhœa has been established, and she complains of a constant pain across the scrobiculus cordis. She is altogether in a very bad way. Her pulse is small, weak, intermitting and very irregular. The first time I count it I find it beating at the rate of 95 per minute. I count it again and find it 102; the next minute it is 92, and so on.

On physical examination of the chest we notice that she is greatly emaciated, and the chest-walls are very thin. A very distinct shock is seen over the entire chest at each impulse of the heart. The apex occupies the sixth and seventh intercostal spaces and extends from the mamillary line two inches to the left. We observe when we place the hand over the heart that while the force is notably increased, it conveys at the same time a rolling or undulating sensation. It is evidently both hypertrophied and dilated. The purring thrill observed in the preceding case is appreciable here, but with not so much intensity. On auscultation I find two murmurs at the apex. The first is soft and blowing and accompanies the first cardiac sound. The second is diastolic and is about similar in character to the murmur heard in the preceding case. As I carry my stethoscope to the left I notice that the second murmur is lost while the first persists with almost equal intensity and may be heard all the way around to the vertebral column. Neither murmur is heard at the base of the heart or in the course of the great vessels of the neck. We have here a ready solution of all the distressing symptoms of which the patient complains. The lesion here is situated at the left auriculo-ventricular orifice and the physical signs bespeak both constriction and insufficiency of the valves. There can be little doubt that it is a case of progressive valvulitis—progressive from the beginning. According to Fothergill this is "a slow and progressive disease as a rule, sometimes not very slow. It is otherwise known as sclerosing endocarditis. It consists of a parenchymatous inflammation or cell-growth into the valve curtains and earthy salts may be deposited in them when the condition spoken of as ossification of the valves is found. At other times time atheromatous tubercles are found springing from the surface of the affected valves.

"This form of valvulitis is essentially progressive though the rate of progress is by no means the same in every case." It attacks by preference the valves at the aortic orifice, though the mitral valves are by no means exempt. Such a case we have before us this morning; whether or not it originated in the spell of sickness the patient had last spring we can not say. The extensive enlargement of the heart would seem to indicate an older origin; but the symptoms did not appear until this time. At any rate the valves are left in a totally inadequate condition to perform their functions.

As there is a totally different pathological condition at work, the prognosis is essentially different from that in cases of static injury left by an acute endocardial inflammation.

As Sansom says, "in the one case the ruptured compensation is reparable and comparative health may be restored and maintained. In the other the injury is irreparable though judicious treatment may prolong life and postpone the inevitable end."

The measures to be adopted in this case are *mutatis mutandis*, the same as in the preceding one. Rest, nutritious food, digitalis and tonics must be rigidly adhered to, but, as we have seen, even with the close observance of all these rules no permanent improvement can be expected.

Bibliographical.—In the preparation of this lecture the author is indebted to the following sources: A Treatise on Diseases of the Heart and Great Vessels, by J. Hope, M. D., F. R. S., 3d edition, London, 1839; the Diseases of the Heart and Aorta, by William Stokes, Philadelphia, 1855; Clinical Lectures on Diseases of the Heart and Aorta, by Geo. William Balfour, M. D., F. R. C. P., Ed., London 1876; Lectures on Diseases of the Respiratory Organs, Heart and Kidneys, by Alfred L. Loomis, M. D., etc., New York, 1875; A Practical Treatise on Diseases of the Heart and Great Vessels, by Walter Hayle Walshe, M. D., 4th edition, London, 1873; A Treatise on the Diagnosis, Pathology and Treatment of Diseases of the Heart, by Austin Flint, M. D., 2d edition, Philadelphia, 1870; A Treatise on the Principles and Practice of Medicine, by the same author, 5th edition, Philadelphia, 1881; A Handbook of Physical Diagnosis, by Dr. Paul Guttman, New York, 1880; the Heart and its Diseases with their Treatment, by J. Milner Fothergill, M. D., 2d edition, Philadelphia, 1879; Some Remarks on Affections of the Heart, by the same author, N. Y. Med. Record, July 5 to 26, 1884, inclusive; A Manual of Physical Diagnosis of Diseases of the Heart, by Arthur E. Sansom, M. D., London, 3d edition, London, 1881. Also Traites Cliniques des Maladies du Cœur, par M. Bouillard, Paris, 1824; Laennec, de l'Auscultation Mediate, Paris, 1819; Forget, Precis Theorique et Pratique des Maladies du Cœur, Strasbourg et Paris, 1851; Von Dusch, Lehrbuch der Herz-Krankheiten, Leipzig 1868.

MISSISSIPPI VALLEY MEDICAL SOCIETY.

We are in possession of the programme of the Tenth Annual meeting of the Mississippi Valley Medical Society, (formerly "The Tri-State Medical Society,") at Springfield, Ills., September 23, 24, 25 and 26, 1884.

The typographical appearance of the announcement is excellent. We do not admire, however, that a drug-house occupies a place for advertisement on the folder.

The meetings will be held at Representative Hall, State House.

Each session will be called promptly. Papers are limited by rule to twenty-five minutes. Time for discussion, however, will be given after each series of papers. All physicians in attendance are requested to apply to the Secretary for tickets of membership.

The following is the order of business:

FIRST SESSION, TUESDAY MORNING, SEPTEMBER 23, 10 A. M.

Prayer, by the Rev. R. O. Post.

Address of welcome, by his Excellency, Gov. J. M. Hamilton.

Response.

Report of Committee of Arrangements.

Report of Committee on Programme.

Call for Voluntary Papers.

Call for Papers in their Order.

Admission of New Members.

MEDICAL SECTION.

SECOND SESSION TUESDAY AFTERNOON, 2 P. M.

Chronic Dysentery, Chas. Knapp, M. D., Evansville, Ind.

Chronic Dysentery, Edward Kemp, M. D., Ferdinand, Ind.

Clinical Notes, Donald McLean, M. D., Detroit, Mich.

Paper, J. P. Matthews, M. D., Carlinville, Ill.

Laryngeal Phthisis, Thos. F. Rumbold, St. Louis, Mo.

Prophylaxis of Phthisis, W. Porter, M. D., St. Louis.

Gall Stones, Their Prevention and Treatment, Wm. Byrd, M. D., Quincy, Ill.

Paper, Walter Hay, M. D., Chicago, Ill.

Is Cancer a Local Disease? L. M. Kyle, M. D., Manchester, Ind.

Neuroses of the Digestive Apparatus, J. O. Jewell, M. D., Chicago, Ill.

Rare Cases from Practice, A. M. Owen, M. D., Evansville, Ind.

THIRD SESSION, TUESDAY EVENING, SEPTEMBER 23, 8. P. M.

President's Address—Medical Society Work, B. M. Griffith, M. D., Springfield, Ill.

FOURTH SESSION, WEDNESDAY MORNING, SEPTEMBER 24, 9 A. M.

Announcement of Committee on Nominations.

What Practical Benefits are to be Derived from the Germ Theory of Disease? W. S. Haymond, M. D., Indianapolis.

Paper, Arch Dixon, M. D., Henderson, Ky.

Report of a Case of Albuminuria, G. V. Woolen, M. D., Indianapolis, Indiana.

Paper, A. P. Brown, M. D., Jefferson, Texas.

Relation of Nerve to Muscle—Being the Basis of Antipyretic Treatment in Fevers and Inflammations, R. E. Haughton, M. D., Indianapolis, Ind.

Thoughts on Evolution, Amos Sawyer, M. D., Hillsboro, Ill.

Medical Education and Regulation of Practice of Medicine in the United States, J. H. Rauch, M. D. Springfield, Ill.

GYNECOLOGICAL SECTION.

FIFTH SESSION, WEDNESDAY AFTERNOON, SEPTEMBER 24, 2 P. M.

Present State of Gynecology and its Relation to General Medicine, Sarah Hackett Stevenson, M. D., Chicago, Ill.

"An Enemy Came and Sowed Tares," Joseph Eastman, M. D., Indianapolis, Ind.

Paper, A. J. Stone, M. D., St. Paul, Minn.

New Operation for Chronic Inversion of the Uterus, W. H. Wathen, M. D., Louisville, Ky.

Paper, J. W. Thompson, M. D., Paducah, Ky.

Electricity in Gynecological Practice, H. B. Buck, M. D., Springfield, Ill.

Paper, C. A. L. Reed, M. D., Hamilton, Ohio.

Treatment of Cystitis in the Female, E. C. Dudley, M. D., Chicago, Ill.

Perimetritis, T. S. Galbraith, M. D., Seymour, Ind.

Means of Relief in Difficult Labors, Geo. B. Walker, M. D., Evansville, Ind.

SIXTH SESSION, WEDNESDAY EVENING, SEPTEMBER 24, 8 P. M.

Preventive Medicine, H. A. Johnson, M. D., Chicago, Ill.

SURGICAL SECTION.

SEVENTH SESSION, THURSDAY MORNING, SEPT. 25, 9 A. M.

Repair of Bones, H. C. Fairbrother, M. D., East St. Louis, Ill.

Report of Case of Malignant Disease of the Testicles, J. A. Sutcliffe, M. D., Indianapolis, Ind.

Paper, Duncan Eve, M. D., Nashville, Tenn.

Trophic Nerve Influence in the Healing of Wounds, Wm. H. Bell, M. D., Logansport, Ind.

Paper, W. T. Briggs, M. D., Nashville, Tenn.

EIGHTH SESSION, THURSDAY AFTERNOON, SEPT. 25, 2 P. M.

A New Head Rest in Spinal Disease, C. E. Webster, M. D., Chicago, Ill.

Report on Surgery for the Past Year, C. A. Wells, M. D., Red Clay, Ga.

Paper, L. B. Todd, M. D., Lexington, Ky.

Chronic Torticollis, W. F. Billard, M. D., Boonville, Ind.

NINTH SESSION, THURSDAY EVENING, 8 to 10½ P.M.

MICROSCOPICAL SOIREE.

Those having interesting specimens are requested to bring them. A sufficient number of good microscopes will be on hand.

OPHTHALMIC AND AURAL SECTION.

TENTH SESSION, FRIDAY MORNING, SEPT. 26, 9 A. M.

The use of the Actual Cautery in Eye Surgery, J. O. Stilson, M. D., Indianapolis, Ind.

Chronic Dacryo-Cystitis, John E. Harper, M. D. Chicago, Ill.

Paper, Dudley S. Reynolds, Louisville, Ky.

Penetrating Wounds of the Cornea, T. J. Dills, M. D., Fort Wayne, Ind.

MISCELLANEOUS SECTION.

ELEVENTH SESSION. FRIDAY AFTERNOON, 2 P. M.

Insanity Defined, Chas. H. Hughes, St. Louis, Mo.

Insanity, C. B, Stemen, M. D., Fort Wayne, Ind.

Hospital Observations in Europe, David Prince, M. D., Jacksonville, Ill.

Will Relate the Impressions I experienced in my Trip Abroad, Edw. Borck, St. Louis, Mo.

The Relation of Medical Education to State License, Romain J. Curtis. Joliet, Ill.

Life Insurance and the Medical Profession, I. N. Danforth. Chicago, Ill.

BOOK NOTICES.

SEXUAL NEURASTHENIA; Its Hygiene, Causes, Symptoms and Treatment. By George M. Beard, A. M., M. D. Published by E. B. Treat, New York. Edited by A. D. Rockwell. M. D.

This a book of no practical value to the physician and bears the imprint rather of that class of books whilst written ostensibly for the profession are rather expected to get into the hands of the laity. The various chapters are: Chap. I., Nature and Varieties of Neurasthenia. Chap. II. Evolution and Relation of the Sexual Sense. Chap. III. The Relation of Neurasthenia to Other Diseases. Chap. IV. Sexual Hygiene. Chap. V. Diagnosis and Prognosis. Chap. VI. Illustrative Cases. Chap. VII. Treatment of Sexual Neurasthenia. Chap. VIII. Diet of the Nervous.

On looking more carefully into the book we conclude that it is simply beneath criticism. The chapter on Diagnosis and Prognosis embraces, practically, four pages; and the only item given for diagnostic differentiation is the excessive irritability of the prostate. The rest of the chapter is devoted to the question of marriage and the conjecture, whether or not the children will be neurasthenic. We cannot refrain from giving a short quotation so that our readers may judge for themselves. The following under the discussion of the Relation of Neurasthenia to Kidney Diseases is a fair sample of the book:

"I hold therefore, that Bright's Disease, in its different forms, belongs to the list of half-way diseases—that is, affects those who are not perfectly strong nor perfectly weak, who have a sufficient degree of health to keep from having nervous exhaustion, but not sufficient to keep them from having a degenerated condition of the arteries or organs connected with the kidneys."

BOOKS AND PAMPHLETS RECEIVED.

Quarantine and Sanitary Operations of the Board of Health of the State of Louisiana, during 1880—1883. By Joseph Jones, M. D.

Annual Report of the Supervising Surgeon-General of the Marine Hospital Service of the United States for the Fiscal Year, 1883.

Fifth Annual Report of the State Board of Health of Illinois

Second Annual Report of the Provincial Board of Health of Ontario, being for the year, 1883.

Gun-shot Wounds of the Small Intestines. By Prof. C. T. Parkes, M. D.

Nervous and Mental Physics. By S. V. Clevenger, M. D. Reprint from the American Journal of Neurology and Psychiatry. 1884.

Phthisis Pulmonalis, etc. By L. H. Wood, Denver, Col. Reprint from the Denver Medical Times.

Rapid Lithotrity, or Litholopaxy, its later improvements and present condition. By Ed. Andrews, M. D., LL. D. Reprint from the Jour. of the Amer. Med. Ass'n, March 15, 1884.

Report on the Epidemic of Enteric Fever in Port Jarvis. (State Board of Health of New York.)

Medical Society of the State of Tennessee.—Transactions.—Thirty-first Annual Meeting.

Address on Practical Medicine. By J. V. Shoemaker, A. M., M. D. Read before the American Med. Ass'n in Washington, 1884.

Proceedings, Addresses and Discussions of the Third Semi-annual Meeting of the Kentucky State Sanitary Council, Bardstown, 1884.

Public Health Laws of Illinois and Sanitary Memoranda. Pub. by the Illinois State Board of Health.

On Fat Embolism. By Roswell Park, A. M., M. D. Reprint from New York Med. Jour. Aug. 16, 1884.

Report on Ophthalmology and Otology. By R. Tilley, M. D. Read before the Illinois State Medical Society, May, 1884. Reprint from Weekly Med. Review.

Preventable Blindness. By Samuel Theobald, M. D. Rep. from the Transactions of the Medical and Chirurgical Faculty of Maryland. 1884.

ITEMS.

—Painless Escharotics.—A painless caustic for the removal of warts and tumors may be made as follows:

Arsenious acid - - - - - -	1 part.
Sulphate of morphine - - - -	1 "
Calomel - - - - - - -	8 parts.
Powdered gum arabic - - - -	48 "

This is to be sprinkled over the cuticle daily, the surface of which had been previously denuded by knife or blister.

Cauquoin's paste for the same purpose is composed of ten parts of chloride of zinc, two parts of alcohol (60 degrees), and fifteen parts of wheat flour. The zinc in fine is added to the alcohol, then incorporated with the flour in a mortar, strongly pressing with the pestle. As soon as homogeneous it is spread with a roller into sheets an eighth of an inch thick, and after a few hours put into a well-corked bottle.

Latour's nitrochloride of zinc paste is also an excellent preparation, and is made by dissolving fifty parts of the chloride and one hundred parts of the nitrate of zinc in eighty parts of water. The solution is made by the aid of heat. When it cools, seventy-five parts of wheat flour are incorporated with one hundred parts of the solution, as with Cauquoin's paste.—Scientific American.

—The meetings of the American Public Health Association will be held at Liederkranz Hall, Thirteenth street and Chouteau Avenue, St. Louis. This selection, in view of the large attendance expected, is a fitting one.

—A Method of Cleaning Catheters.—A correspondent of the Lancet says: "Take a cork of more conical form than that commonly used, with a hole made through it longitudinally; pass the catheter through the hole, and fix the cork into the tap of an ordinary water-pipe (hot water preferable), and turn on the water. By so doing the catheter is properly cleansed."

—Dr. Edward Borck, of St. Louis, who favored us with a number of letters during his sojourn abroad has returned to the city and again entered upon his sphere of activity and usefulness.

—Dr. Robert Empie Rogers, a prominet physician and a leading teacher of chemistry, of Philadelphia, died there on September 6th. He was born in Baltimore, Md., in 1814, and after a careful preliminary education he studied and was graduated as an M. D. from the University of Pennsylvania in 1836. From 1844 to 1852 he was Professor of Chemistry at that University, and assisted his brother, J. B. Rogers, in preparing his edition of "Turner's Chemistry," and on the death of that brother he succeeded him as Professor of Chemistry in the Medical Department of the University of Pennsylvania. In 1877 he resigned his position, and accepted a similar one in the Jefferson Medical College, in Philadelphia. He contributed to the Journal of the Franklin Institute, took part with his brothers in the geological surveys of Virginia and Pennsylvania, and edited the American reprint of "C. G. Lehman's Physiological Chemistry," 1855.

—The next meeting of the Missouri State Board of Health takes place in St. Louis, at the Laclede Hotel, on October 14th, 1884, and not on October 4th, as printed in the semi-annual report of the Board. This announcement is official and of importance to the medical fraternity.

—Dr. W. Gill Wylie has written a memorial sketch of the Life and Works of the late Dr. J. Marion Sims. The following is said of the personal habits and methods of this great man:

"He was truly master of himself. Vices he had none, not even of the smallest kind. The animal in him was completely under control. His habits and his appetites were always guided by his reason. I have known him day after day, month after month, rise at seven, take a simple breakfast, consisting of a glass of milk and Southern hominy, bread and butter and sometimes an egg. At eight enter his carriage, and make a few morning calls on severe cases. At nine return to his office and see patients till one or one thirty, take a simple lunch of steak, potatoes, etc. At two enter his carriage, visit patients, operate, etc., returning home usually about five or six, write letters, and at seven take a plain dinner of one kind of meat and vegetables. He never took wine nor coffee, nor tea, nor condiments of any kind. At the table he was usually talkative and playful, talking about the topics of the day, the theatre, of which he was fond, etc. After dinner he usually wrote letters and did light work, reading journals, etc., or passed his time with his family or friends in the drawing-room. About nine thirty he would usually go to his bedroom, where he read or

wrote, sometimes lying in bed until midnight, when he would retire for the night. It was always marvelous to see him so continuously and persistently intent upon his work. He had a habit of writing down ideas at night, by means of a pamphlet, the edge being placed on paper so as to guide his pencil without light.

"When one was familiar with his capacity for endurance, his power for concentration, his unbounded enthusiasm, his deliberate, persistent, painstaking work, backed up by his unselfishness and undaunted moral courage, it was not surprising to witness his success. His motto as a boy was: 'Duty before pleasure.' Later in life, he needed no motto; it had become a habit for him to do what he thought was right. Difficulties, obstacles, and troubles were as nothing to him when once he made up his mind to act. He went directly at a thing, and he kept at it until it was mastered. It was this great painstaking and persistent work that made things so clear and so definite to him, and enabled him to express his ideas so lucidly. It was also this power that developed his self-reliance and his moral courage, and made his instruments and his methods of operating so near perfect, that those who claim to improve or to modify them, are merely working backward over the same ground that Marion Sims traveled over in perfecting them. His was the inductive method, or working and perfecting method—a developing method. He cleared away complications, and gradually simplified ideas and instruments, till they approximated the truth and the best.

"He was no idle dreamer; he never wandered into intangible mysticism; there was neither confusion about his work, nor indefiniteness about his aims.

"His mind was always aggressive, progressive, receptive, and ingenious. He was a leader—a practical genius."

—On or about the first of September the public schools throughout the country reopen. Teachers and principals will neglect some of their important duties if they devote themselves entirely to the mental training of their pupils. Among the things likely to be forgotten, but which should always be in mind, is the sanitary condition of the school building. Children cannot do good mental work unless they are supplied with good air. Any one who has had any experience as a teacher knows that the atmosphere of a crowded and close school-room very soon becomes foul and nauseating. Without going into details, let the teacher bear in mind that there should be a positive movement of the respired air out of a room, and fresh air into it, and then set his wits to work to secure this. The teacher is not above knowing whether his building is properly drained and sewered, and whether the water-supply, if in small towns, is contaminated by privy-vaults and cess-pools. The percentage of good work at the end of the term will be much greater if the teacher continually looks to the physical well-being of his pupils.—Sanitary News.

—The London Sanitary Protective Association, at the close of its second year, had five hundred and thirty-three members. During the year it had secured the inspection of three hundred and sixty-two houses, with the discovery and correction of many serious errors in sanitary arrangements. Six per cent of the houses had their drains choked up so that foul water from the sinks simply soaked into the ground; in thirty-two per cent of them the soil-pipes were leaking, and sewer gas could escape into the house; in thirty-seven per cent the overflow-pipes from cisterns passed direct into the drains or soil-pipes, admitting sewer:gas into the water of the cistern and into the house; and in three-fourths of the houses waste-pipes from baths and sinks led direct into the drainer soil pipes instead of, as they should, direct into the open air. Professor Huxley resigned the presidency of this society, and was succeeeded by the Duke of Argyll.

—The Cholera Victims.—In 1871 there were 300,000 deaths from cholera in Russia; in 1873 there were 16,000 deaths in Poland; in 1872-73 there were 140,000 deaths in Hungary; in 1872-73 there were nearly 27,000 deaths in Prussia; in 1865-67 there were 143,000 deaths in Italy. In Paris the mortality from cholera has been as follows. In 1832, 18,654 deaths; in 1849, 19,184; in 1853-54, 8,096; in 1865-66, 12,082; in 1875, 885. In England, in 1849, the deaths from cholera were 70,000. In 1817 the army of the Marquis of Hastings in India lost 9,000 men in twelve days from Asiatic cholera.

—Upwards of two million people visited the International Health Exhibition between May 8, and August 16, a period of little over three months.

DEATHS IN ST. LOUIS FOR THE WEEK ENDING SEPTEMBER 13. 1884.

Small-pox		Convulsions and trismus.	9
Measles		Heat stroke	1
Scarlatina	1	Apoplexy	2
Diphtheria	4	Other diseases of the brain and nervous system	11
Membranous croup		Cirrhosis of liver and hepatitis	3
Whooping cough	1	Enteritis, gastro-enteritis, peritonitis and gastritis	4
Typhoid fever	8	Bright's disease and nephritis	
Cerebro-spinal fever		Other diseases urinary organs	2
Remittent, Intermittent, Typho-malarial, congestive and simple continued fevers	7	Diseases generative organs	1
Puerperal fever	2	Diseases of the locomotory organs	
Diarrhœl Diseases.		Diseases of the integument	
Under 5 years	21	Accidents of pregnancy and childbirth	
Other ages	5	Congenital debility, malformation, etc	11
Erysipelas		Senility	4
Pyæmia and Septicæmia.	1	Surgical operations	1
Syphilis		Deaths by suicide	5
Inanition, want of breast milk, etc	2	Deaths by homicide	1
Alcoholism		Deaths by accident	9
Other zymotic diseases		Execution by warrant of law	
Rheumatism and gout		Unknown	
Cancer and malignant tumor	1	*Total Deaths from all Causes*	180
Phthisis and tuberculosis Pulmon	11	*Total zymotic Diseases*	52
Marasmus—Tabes mesenterica and scrofula	17	*Total Consitutional Diseases*	32
Hydrocephalus, tubercular meningitis, etc	1	*Total Local Diseases*	65
Other constitutional diseases	2	*Total Developmental Diseases*	15
Bronchitis	3	*Deaths by Violence*	16
Pneumonia	3	*Unknown*	
Other diseases respiratory organs	2		
Diseases of the circulatory system	6		
Meningitis and encephalitis	10		

Gib. W. Carson, M. D.,
Clerk of Health Commissioner and Board of Health.

THE WEEKLY MEDICAL REVIEW.

VOL. X. NO. 13. CHICAGO AND ST. LOUIS, SEPTEMBER 27, 1884. TERMS: $3 A YEAR.

ACUTE TRAUMATIC MALIGNANCY.—We find the following highly illustrative cases of the above pathological condition quoted in the Med. and Surg. Reporter, being taken from a report by Dr. Lambert H. Ormsby in the Lancet, July 26, 1884:

CASE I.—B. H., a young gentleman, aged ten, in the month of June, 1869, fell off some rocks at the sea-shore. In falling, he came in contact with a large stone, which struck his right leg about two inches below the tubercle of the tibia. He felt the place rather stiff and painful for two or three days after the injury, which was treated by cold lotions, bandaging, and rest. However, the pain never altogether disappeared, and in about a fortnight the whole circumference of the limb began to swell, and the seat of the injury, on the front of the tibia below the knee, became very painful. He was unable to walk and began rapidly to lose flesh and appetite. The limb by this time had become considerably enlarged, glazed, and tense, with large blue veins coursing over its surface. About the end of July his father consulted the late Mr. Adams, who recommended that Sir George Porter should also be consulted. At this time the nature of the case was clearly defined, being considered by the surgeons mentioned to be a rapid development of malignant disease of the tibia, at the seat of injury. Amputation at the lower third of the thigh, above the knee-joint, which was already more or less implicated, was suggested as the only means available to save the little patient's life. The father, however, would not consent, but took the child to London, where he consulted Sir James Paget and Mr. Cæsar Hawkins, who also recommended that amputation should be performed. After remaining in London some few days, the father brought the boy back to Dublin, who by this time had become very much weaker and more emaciated, being apparently worn out by the incessant pain and sleepless nights. At the request of the father the limb was amputated at the lower third of the thigh by Sir George Porter, assisted by the late Mr. Adams, Mr. William Stokes, and myself. The boy recovered the shock of the operation, but sank three weeks afterwards from sheer exhaustion. In this case the patient was apparently in the best of health up to the time of the fall, and from that period rapid development of malignant disease (fungus hæmatodes) set in, and he died within three months of the receipt of the local injury.

CASE II.—Robert F., aged twenty-five, was admitted to the Meath Hospital from the county of Keary, on March 18, 1884, under my care, suffering from an enormous tumor growing from the left side of the neck. His previous history was as follows: About ten months before he received a severe blow of the fist on the left side of his neck and from that time he felt pain and uneasiness in the part. A slight swelling soon appeared and grew rapily till it reached its present dimensions,as depicted by photograph, which was taken while in hospital. His family history was good; none of his relatives were affected with cancer; he has had to work very hard, subjecting himself to much wet and cold. Latterly, he thought the tumor had increased more rapidly in size, it had become very painful, and he had lost flesh. He had difficulty in swallowing, owing to the encroachment and pressure of the tumor internally on the fauces. Several consultations were held with a view to decide as the propriety of an attempt being made for its removal. He was exhibited at a meeting of this section,and sev-

eral members present saw him. However, it was considered advisable not to operate, as the operation would necessitate the removal of the entire lateral aspect of the neck. The patient on hearing the decision regarding his case, left the hospital about April 24, 1884, for the country, without having an operation performed.

Case III.—Thomas N——, aged forty-nine, was admitted to the Meath Hospital from Roscrea on September 11, 1883, under my care, recommended by Dr. Powell, of Roscrea, suffering from an obscure, doughy, tense enlargement of the lower inner third of the left thigh. In June of last year he was working as a navvy on a railway, where he received a severe blow on the inside of his left thigh, at the seat of the present swelling. The part was painful for a few days, when the uneasiness passed away. However, the limb always remained swollen at the point of injury, and slightly stiff. He received the blow in June, and about the middle of August he experienced great uneasiness, with sharp darting pains through the part. He then applied to Mr. Powell, of Roscrea, who sent him up to the Meath Hospital. On admission, the man was rather debilitated, having lost much flesh lately; his left knee and lower part of the thigh were a good deal swollen, with large blue veins distinctly visible over the surface. As the swelling was rather obscure at first, rest, tonics, and strapping the enlargement with compound mercurial ointment were tried, but with no effect. He complained of the bursting tense pain of the tumor, and thinking there might be some fluid present I accordingly, on October 9, 1883, made an exploratory puncture with trocar and canula, and removed a large quantity of darkly colored bloody fluid, which gave him great relief. But the tumor continued to enlarge rapidly, and the clinical characters of the tumor were becoming manifest, as was verified afterwards by a careful microscopic examination by Mr. Abraham, that it was an ossifying sarcoma. A consultation of my colleagues was held, at which consultation Mr. Wm. Stokes was present, when it was decided to recommend amputation at the upper third of the thigh. The patient on hearing this said he would rather die than allow the limb to be removed. He accordingly left the hospital for the country about October 20, 1883.

On January 3, 1884, the man returned to Dublin, and was admitted again to the Meath Hospital in a very much worse state. He seemed greatly worn out with pain. He said that he was now quite determined to allow the limb to be amputated, as he could no longer endure the pain. The tumor had increased considerably, and its clinical appearance was well marked. Accordingly, on January 7, 1883, I amputated the limb by the circular method at the upper third of the thigh, with full antiseptic precautions, and the man made a rapid recovery, and left the hospital at the end of February last. It was remarkable how quickly he recovered health and strength after the limb was amputated, no doubt owing to the removal of the excruciating pain he experienced in the limb before its removal. He had been perfectly healthy up to June, 1883, when he received the local injury, and from that time the malignant character of the tumor was clearly defined in the course of three months.

Case IV.—Frances J ——, aged fifty-eight, a farmer from Kesh, was admitted to the Meath Hospital, under my care, on September 24, 1883. On December 10, 1882, during the hard frost, he fell with great force on the point of his left shoulder. It was a little sore at the time, but gave him no trouble till five weeks after the accident, when the shoulder began to swell and grew very painful. He then went to the local practitioner, Dr. Geo. Leeper, who applied anodyne liniments, followed by blistering. This gave him some slight relief, and, acting on his advice, the man went into the County Infirmary at Enniskillen, where he was poulticed and afterwards blistered. He, however, did not improve, and left the infirmary, after remaining there for seven weeks, to return to his home. He then, by the advice of his friends, applied poultices of herbs to his shoulder, which pro-

duced suppuration at the part. At this stage, Dr. Leeper was sent for, who made an incision in the tumor and gave free exit to a quantity of very offensive pus, after which the swelling in the shoulder went down considerably, and he felt better in every way. While under Dr. Leeper's care a piece of diseased bone found its way to the surface. Dr. Bagot, of Enniskillen, saw the man at this time, and recommended him to seek admission to a Dublin Hospital.

On examination, the contour of the shoulder was found very much changed, presenting an immense lobular malignant-looking enlargement (probably sarcoma), with a tense, semi-elastic surface, resembling a boiled leg of mutton, with large veins coursing over it. The glands in the axilla were also implicated, and became merged into the swelling. There was also a constant discharge of thin sanious pus, from two small openings where the piece of bone was removed. The disease and enlargementextended from the insertion of the deltoid along the clavicle and down the great pectoral muscle, across the anterior fold of the axilla, round the arm, to the posterior fold of the axilla and scapula as far as the attachment of the deltoid to the spine of that bone. On September 26, 1883, two days after admission to the Meath Hospital, a full consultation was held on the man's case. The only operation that could have been performed was amputation at the shoulder-joint, but as the disease had extended to the pectoral muscle on the front of the chest wall, as well as implicating the scapular muscles behind, it was thought such an operation would fall short of removing the entire disease, and further, as the patient was so reduced in strength and emaciated by the constant pain, it was considered that he would not be able to undergo such an operation. Tonics were administered and the shoulder poulticed, and on October 15, 1883, he returned home to the country, where he died a fortnight afterwards quite suddenly, probably from an embolism. In this case the man was in the best of health up to the time of injury, on December 10, 1882, and he died a little over ten months after the accident, of undoubted malignant disease.

Diagnosis of Valvular Disease.—Fraentzel lays down the following axioms in the Charité Annalen, ix.

1. Render no definite opinion on a case of valvular disease sub finem vitae unless the diagnosis has been before definitely made out.

2. Valvular lesion of the right heart, and especially from endo-carditis, is of very rare occurrence in extra-uterine life.

3. In the diagnosis of valvular disease the consideration of the heart-murmurs should always be of secondary weight and importance.

Furunculosis and Sugar in the Urine.—It is a well substantiated observation that in the course of diabetes mellitus extensive furunculosis may develop. And patients presenting themselves for treatment for this affection are often discovered to be diabetic and so the first knowledge of this state of affairs is obtained. On the other hand the possibility exists of a temporary diabetic condition secondary to furunculosis. From the gangrenous and sloughing tissues in wide-spread furunculosis there may take place absorption of sugar, the product of disintegration, and this sugar, if not oxydized, will be eliminated as such by the kidneys. Then diabetes mellitus is diagnosed, but passes away with the healing of the furuncles. O. Rosenbach relates a case in point in the Deutsche Med. Wochenschrift, 31. A child, a year old, had extensive furunculosis. There was no sugar in the urine at first and for quite a time. The disease was obstinate and did not yield to treatment. Soon sugar was found in the urine and continued to be present until the death of the child.

On the Influence of Quinine on the Economy.—The majority of experiments have shown that the introduction of quinine into the organism is followed by a considerable reduction of the elimination of the products of albumen-disintegration. A few, however, have reported no such great degree of reduction and some even claim an increase of waste and elimination. To test the question Prior subjected himself to tests and gives

his results in the Archiv. f. die Gesammte Physiologie, xxxiv. He starved himself to the point of a fixed and constant amount of nitrogen-excretion; this was 19.28 grammes per diem in urine and fæces. When he arrived at this figure as a constant one he took quinine in varying doses and found the elimination of nitrogen was much diminished thereafter. Urea, the urates, chlorides, phosphates, and sulphates were reduced in quantity; at the same time the amount of water voided was increased. This influence was manifest two to three days after the taking of the quinine and continued as long as quinine could be determined in the urine.

The following table presents the variations in percentages of the normal values:

Amount of Quinine.	Increase of Urine.....	Decrease of				
		Urea....	Urates..	Cl. Na..	Sulph....	Phosph..
1.5 g once a day.....	13.5	17.8	83.8	8.3	20,0	13.9
1.0--1.0--1.5 g on three successive days....	9.9	16.8	70.3	8.7	34.0	21.2
0.25 g four times a day for three days..	4.5	14.5	44.6	4.5	30.4	16.0
2 g twice a day.....	14.75	29.3	90.5	14.5	50.4	42.3

Prior verified his results by experiments with starving dogs.

The Heredity of Diabetes Insipidus.—In Virchow's Archiv, 95, Weil gives the genealogy of a family of polyuriists for four successive generations. There were in these generations ninety decendants from one male progenitor, who had diabetes insipidus. Of the ninety individuals twenty-two were diabetic. Of the twenty-two, three were children, seven grand-children and twelve great-grand-children. There was no hereditary taint of any description; on the contrary the family was of excellent and robust constitution. The progenitor grew to be 83 years old and several of the others are living over 70 years of age. The polyuria seemed in the members that had it to be present from birth. At any rate the parents could soon diagnose the affection themselves from the fact that the afflicted were "water-drinkers;" that is to say, the babes were not content with their mother's milk, but demanded and drank water in abundance. In one of the cases an attack of typhoid fever temporarily masked the disease. Pregnancy increased the secretion of urine.

Reflex Epilepsy.—Bokai (Pesth. Med.-Chir. Presse, 1884) had a case of confirmed epilepsy that developed three days after the incision of an abscess in the palm of the left hand. The scar was painful and tender and on pressure a violent and characteristic attack of epilepsy followed with unfailing regularity. It was determined to cut out the scar. Only an incomplete narcosis could be carried out and during the process of excision a most violent attack of long duration took place. The result however was a brilliant one. No epileptic attack developed thereafter and the patient was well at the writing, ten months after operation. The most searching investigation failed to reveal the presence of any nerve elements in the excised tissue.

The Mississippi Valley Medical Society at its Springfield meeting this week elected the "Weekly Medical Review" its official organ. Our readers may look for the proceedings, papers, etc., in due time.

Treatment of Cancer of the Neck of the Uterus.—Dr. Goodell thus describes his procedure: (Med. and Surg. Rep.)

"Having torn away all I can with my fingers, I inject pure vinegar, and now resort to the serrated curettes. With these the parts are thoroughly scraped, and with the gouge-forceps the vaginal portion of the cervix is removed. Next, with the platinum buttons of the thermo-cautery, I char the whole funnel-shaped wound. * * * .The operation is now ended, and as there is no hemorrhage, I shall not tampon the vagina. But supposing you operate in the country at a distance from home, and you wish to guard against hemorrhage, or to stop an oozing, what do you do? You take a sponge and pass a string through the centre and tie the two free ends together in a long loop. Do not tie your string around your sponge, for you

will then deprive it of its elasticity and the power of expanding. Prepare three sponges in this way, and soak them in vinegar. Pack the first sponge very firmly into the funnel-shaped wound, and make one knot in its string. The second sponge, with two knots in its string, will be pushed down to the cervix: and the third one, with three knots, will keep the other two in place. In twenty-four hours remove the sponge with three knots, and in forty-eight hours withdraw the sponge with two knots, and immediately afterwards the sponge with one knot. This last one must be removed carefully, and with a rotary motion.

I do not put sponges in my patient's vagina because she is in a hospital, in which some physician is always on hand. But supposing at 3 o'clock this afternoon the nurse finds our patient bleeding, what instructions shall I give our resident? He will first inject vinegar, and if that does not stop the hemorrhages, he will then pack the womb and vagina with sponges in the way which I have just described. * * * While I am washing my hands, let me say a few words as to the danger of contracting disease from these cases. I have a cut on my finger at the present moment. I did not find it out till I made the examination, and acrid discharges got into it; but I do not fear cancer infection as such. If there were any possibility of the kind I would never operate. I might, however, get the wound poisoned by septic matter, not by cancerous matter as such. Once, while enucleating a fibroid of the womb, which had begun to break down, I got a wound that gave me considerable trouble; but my health was below par from a hard winter's work. So dissecting wounds are generally more mischievous at the end of the curriculum than at its beginning. The point, however, which I wish to impress on you is, that you need never fear that you run any risk of being inoculated by cancer germs, but only by the septic matter in those germs."

Hydriodic Acid in Rheumatism.—When we see a writer in ever so prominent a journal writing relative to rheumatism: "I have also prescribed salicylic acid but cannot say that I have seen any decided benefit derived from its use;" and thenspecifying a specially manufactured syrup of a given house, continues: "I use it in all cases of acute rheumatism and must say have always been pleased with its results;" we cannot suppress a feeling that some other interest than that of the patient or the profession is exerting a powerful influence. There can be no doubt that hydriodic acid as well as iodide of potassium accomplishes wonders in some cases of rheumatism, especially of a specific character, but if a pharmacist cannot be entrusted to make a syrup of the iodide of potassium then where shall we end,and how can we expect to enjoy that amicable feeing which should exist between the physician and pharmacist.

Lawson Tait's Address on Abdominal Surgery.—Those who have in the distance admired the work of Mr. Lawson Tait, of Birmingham, England, will find their admiration increased by the perusal of his vigorous candid and practical address, which he delivered before the Canada Medical Association at Montreal. He therein pays the Western Continent a high compliment in predicting that ere long it will be to the Medical Schools of America that the students of England will travel, rather than to the schools of continental Europe. We are perfectly aware that some of his colleagues in the mother-country will smile as they read this and regard the same as simply so much "taffy." But Mr. Lawson Tait is not accustomed to distribute "taffy" very freely; and we understand him to mean that the disposition to judge questions solely on their own merits, entirely apart from any prejudice tradition, or personal bias will ere long have given the American institutions advantages which no other privileges can possibly develop; and that such developments will be so great that those circumscribed, checked, held back by an ill-timed conservatism, will not be able to afford to leave them unexplored. At any rate it would be

astonishing if our watches, sewing machines and type-writers can beat the world, and the resulting work of those who devote themselves to the healing art, should exhibit nothing worthy of observation. It will undoubtedly be some years before such a condition will be realized, but come it will.

We are glad to record here not only the compliment he pays to the West, but also the credit he gives to his own country-men. "To Keith," he says, "is due the whole credit of the modern development of abdominal surgery." We are also glad to be reminded that Lawson Tait does not discard the use of the so-called antiseptics without having previously made an extensive personal trial of them. "I had practiced," he says, "all the details in their ever varying form as recommended by Mr. Lister from 1866 onwards, and gave them up one after another, as I found they disappointed and hindered me. Finally I gave the spray and its adjunct a long and complete trial—a trial far more careful in its details than anything I ever saw elsewhere, extending over three years. * * * Since 1881 my practice has been entirely free from all these details." In endeavoring to give an explanation of his own success in abdominal surgery, he says:

"If I may formulate my own answers, they would be briefly to this effect. I have given up my life to this work, and I engage in no other kind of practice; therefore I have a constant weekly experience of five or six of these operations, sometimes as many as eight or ten. I pay the most minute attention to every detail, and maintain an absolute rule of iron over my nurses and my patients. I will not, if I can avoid it, operate in a private house, for there I have no control over either nurse or patient, still less over foolish friends. I can best illustrate the extent to which I carry discipline by telling an incident, which occurred recently, of a kind of which I have had a few, but not many, experiences. For my private hospital I have a rule that when a patient is admitted she must go to bed immediately. A lady with an ovarian tumor arrived, after a journey of some hundred miles, and was asked by the nurse told off for her to go to bed. She said she would not do so until she had seen me. The nurse assured her that I would not come near her till she was in bed. The patient remained obstinate and I sent a message to her that she must either go to bed or go home again, and she elected to do the latter, with much satisfaction to myself. She doubtless thought, and you may think, the rule in question is an absurd one, but the absurdity is only on the surface. It is a test of the patient's obedience and confidence in me, and I know very well that with a patient who begins by disputing my orders and doubting the wisdom of my directions, I could never get on, and therefore it is better for both that we should have an early parting. My nurses I always train myself—in fact, I will not have one who has had previous experience, for I know very well that such a woman will inevitably, to save herself trouble, do something in a way she has done elsewhere, and probably for some purpose altogether foreign to my intention, and will therefore become to me a source of danger and annoyance.

Finally, I give great personal attention to cleanliness in every detail of my work. I trust no nurses or servants without overlooking, and am constantly and at unexpected times turning up carpets, taking down shelves and rooting out cupboards. In this way, and by a process of weeding, I have obtained a large staff of good servants, and have formed a large establishment in which every available precaution is secured. I can give no other reasons than these for my success, and probably they will commend themselves to you."

We can not better express his views of the disadvantage associated with the tapping of ovarian tumors than by quoting his reply to a question: "Tapping never could help in a diagnosis as an exploratory incision could, and it is quite as risky. A small two-inch incision reveals in most cases the precise nature of the tumor, and allows all fluid to be completely evacuated, if nothing more can be done."

New Work on the Principles and Practice of Medicine.—Dr. N. S. Davis, of Chicago, so well-known not only in the West, but throughout America, has embodied his practical experience of nearly fifty years in the form of a book entitled, "Principles and Practice of Medicine." It is to be issued by Messrs. James McClurg & Co., of Chicago, about the first of October. It is written in the form of lectures and will be one volume about the size of Bartholow's Practice of Medicine. Many of our readers will be glad to know that the vigorous and earnest thought of so zealous a worker has assumed a lasting dress.

Hydrargyri Iodidum Viride.—It would seem from a communication by Henry Maclagan to the Pharmacentical Record that the above title is a misnomer, and that the qualifying term viride can only be applied to a preparation which contains varying impurities. He has made an examination of different samples in the market and found as much as eighteen percent of metallic mercury, as an impurity, in one lot examined; and eight percent of mercury and ten percent of the mercuric iodide in another. The color of the pure salt mercurous iodide, which is designated by the above title is a definite yellow color; consequently if we use any qualifying term it should rather be—flavum; but perhaps the better way is designate it would be hydrarygum mon-iodidum.

Whatever phraseology we adopt, however, to express what we desire is a matter of small importance in comparison with the fact of getting what we wish. Mr. Maclagan does not inform us in his article whether the samples he examined were of American or foreign production; we consequently infer that they were manufactured here in this country. We are perfectly satisfied that we can manufacture such articles just as well here as abroad as soon as the proper men take hold of the work, and the work of Mr. M. referred to, will serve to make that conviction still deeper.

Meanwhile, it is a fact, however, that a good many of our physicians are constantly calling for a special pill known as the G.and L. protiodide of mercury pill, and that because these pills have given greater satisfaction, being devoid of the griping quality possessed by many specimens of the proto-iodide found in the stores. (See Keyes on Venereal Diseases, Wood's Edition, p. 117.) It has always seemed to us an insult to our pharmacists to order pills of French manufacture, but it may be that the peculiarity of the various preparations in the market may be the explanation of the preference given to the French preparation.

Foreign Bodies in the Air Passages.—Any one who carefully collects and tabulates 1000 cases of a difficulty so rare as foreign bodies in the air passages, giving the fundamental particulars concerning them is entitled to a very considerate hearing, and it is with pleasure that we refer to such a collection as reported to the American Surgical Association and published in its proceedings. Dr. J. R. Wiest in a paper read in 1882, presenting the tabulated 1000 cases, seems to have been urged forward in his collection by a desire to test the accuracy of a positively stated dictum in the text books that given a "foreign body in the air passages the sooner the windpipe is opened the better." Words similar to these from Prof. Gross' last edition are quoted from Erichsen, Durham, Holmes and Bryant; and yet Dr. J. R. Wiest, with the spirit of divine unrest, which has done so much for humanity, thinks it possible to call it in question.

The cases previously tabulated justified the above quoted dictum, as those published by Prof. Gross added to those published by Durham gave a total of 722 cases. Of those operted upon practically 77 perc't recovered, whilst of those not operated upon only 60 percent recovered. As early as 1867 Dr. Wiest had published a list of 163 cases, the result of which was greatly at variance with the above, and to investigate the question more thoroughly he addressed a circular to the profession asking for reports of cases. In fact he

made use of the same principle which the Collective Investigation Committee of Great Britian is now so efficiently working. The inquiry resulted in the collection of a thousand cases. In 63 of these cases the foreign body was removed by operative measures other than bronchotomy and were of course excluded from the comparison of results, as the question was one of the advantage or otherwise of opening the passages. The number in this case 937 is certainly large enough to justify valuable conclusions. Of the 937, 599 were not subjected to bronchotomy; 460 recovered or 76.79 per cent.; 139 died or 23.20 percent. Bronchotomy was performed in 338 cases with 245 recoveries or 72.48 per cent.; 93 died or 27.34 per cent., giving a difference in favor of non-interference of 4.31 per cent.

An interesting feature of the paper is the comparative frequency wlth which certain substances find a lodgment in the air passages. In the greatest number of cases, 177 examples, it was a grain of corn (maize); in 109 cases it was a water melon seed; in 90 cases it was a bean; in 59 cases a grain of coffee. When the foreign body was a water melon seed there was spontaneous expulsion in 93.33 percent of the cases. When the accident was the result of a grain of coffee the per centage of non-interference was 29.29 better than after bronchotomy, whilst when the foreign body was a grain of corn the percentage of recoveries is in favor of bronchotomy. "In many cases," says W., "the foreign body, after the first paroxysm of strangulation has passed, causes but little if any trouble even when it remains for a long period. While we cannt be certain that these patients are ever free from danger while the foreign body is retained, it can be said, basing the assertion on the results here presented that non-interference affords a better chance of recovery than bronchotomy."

The following are the general principles which W. suggests to the profession for their consideration:

1. When a foreign body is lodged either in the larynx, trachea, or bronchi, the use of emetics, or similar means should not be employed, as they increase the suffering of the patient and do not increase his chances of recovery.

2. Inversion of the body and succussion are dangerous and should not be practiced unless the wind-pipe has been previously opened.

3. The presence simply of a foreign body in the larynx, trachea or bronchi does not make bronchotomy necessary.

4. While a foreign body causes no dangerous symptoms, bronchotomy should not be performed.

5. While a foreign body remains fixed in the trachea or bronchi as a general rule, bronchotomy should not be practiced.

6. When symptoms of suffocation are present or occur at frequent intervals, bronchotomy should be resorted to without delay.

7. When the foreign body is lodged in the larynx, there being no paroxysm of strangulation, but an increasing difficulty of respiration from œdema or inflammation, bronchotomy is demanded.

8. When the foreign body is movable in the trachea and excites frequent attacks of strangulation bronchotomy should be performed.

CONTRIBUTIONS.

STRUCTURE AND FUNCTION.

BY FRANK W. VANCE, M. D., MEMPHIS, TENN.

The biological law that structure originates function and the reaction of function develops structure is manifested in pathological as well as in physiological activity.

Function bears a ratio of complexity of manifestation proportionate to the complexity of organization of the structural seat of that function and a given degree of structural organization evolves a correlated equivalent degree of functional activity. The reaction of the functional correlate of structure restores it to its pre-existent condition of organization preceding its functional manifestation. These alternate rhythms of functional activity and structural restoration are at the basis of all pathological as well as physiological action. Abnormal structure creates abnormal function,

which, reacting on the structural basis continues the existence of disease.

Structure may be strained to manifest function beyond its adaptation and this intensified and exalted functional creation reacting on its structural source causes a higher evolution of that structure. This higher structural product of evolution is then normal, and as such persists, creating a higher functional correlate which also persists as the functional equivalent of the higher structural organization. Structure and function thus increase in power and complexity.

The law of physiological evolution points out the path of pathological evolution. Diseased structure strained to manifest vitiated function beyond its normal morbid adaptation reacts through the influence of the intensified morbid functional products and attains a higher pathological evolution. Pathological structure and function thus increase in power and complexity.

The law of physiological evolution is rounded by the law of physiological dissolution, even so is the law of pathologic evolution rounded by the law of pathological dissolution. After the height of physiological development is reached physiological decay sets in, so after the height of pathological development is reached pathological decay follows. By pathological decay we are to understand the cessation of disease.

The difference in acute and chronic diseases is in their respective periods of short and prolonged duration of evolution before dissolution or disease decay sets in. The culmination of pathological evolution is the crisis of disease, after which disease decay follows.

The empirical nature of physiological and pathological evolution has long been recognized before the philosophic idea has been grasped. Organic development has been known to increase in substance and complexity of organization in the ratio of its functional exertion. Chronic affections, especially periodic nervous attacks (as epilepsy), intermittent fever, etc., increase in persistency proportionate to the repetition of attacks. The frequent repetition of the neurosis which causes hallucination increases the pathological evolution of morbid neurotic organization, and the persistency of the hallucinated product of the vitiated nervous structure. Frequent excitation of emotional centers causes a hypernutrition of those centers with consequent persistency of emotional activity.

Application of the law of evolution to pathology furnishes a potent therapeutic power in the remediation of disease. The integral cells even, as the most complex systems of vital activity, are permeated by the law of evolution in all their pathological as well as physiological courses of vital manifestations.

SELECTIONS.

ON BRANCHIAL CYSTS OF THE NECK.

BY N. SENN, M. D., MILWAUKEE, WIS.

Read in the Section on Surgery and Anatomy of the American Medical Association, May, 1884.

Journal of the American Medical Association).

The differential diagnosis and operative treatment of tumors of the neck, are subjects which belong to the most imperfect and unsatisfactory topics in surgery. The great difficulties which are often encountered in the diagnosis of cervical tumors, and the importance of the anatomical structures which are involved in all operative procedures for their removal, are well-known and appreciated by all who can speak from personal experience. One of the most important, and, at the same time, one of the darkest chapters treating of tumors in this region, relates to cystic tumors, and more particularly that variety which originates from congenital defects of develment, the matrix being composed of fœtal epiblastic or hypoblastic tissue, which remains in its embryonal state for an indefinite time, and later, by prolification of its epithelial elements, give rise to a distinct and characteristic type of cystic tumors. These tumors have been variously designated as branchial cysts (Roser), dermoid cysts of the sheath of the internal jugular vein (Langenbeck), deep-seated atheromatous tumors (Schede), tumors of of the branchial clefts (Nirchow), hydrocele colli congenita (Mannoir), hygroma colli (Luschka), atheromatous cysts of lymphatic glands (Luecke), in accordance with the nature of the contents of the tumor, or the peculiar etiological views entertained by different authors. It appears to me, however, that "branchial cysts" is the most appropriate term, as it expresses at once both the location and the character of the tumor.

EMBRYOLOGICAL AND ANATOMICAL REMARKS.

Toward the end of the first month of fœtal life, we see under the frontal process, open in front and bounded on the sides by four plates, the pharyngeal cavity. The upper pair of plates constitute the first branchial arch. The

next three pairs of plates make up the second, third, and fourth branchial arches, which decrease in size from above downward, so that their median interspaces in front are narrow above and wider lower down. Between each pair of branchial arches on each side remains a transverse cleft, the branchial clefts, which unite during early fœtal life, with the exception of the first one, from which the external auditory canal, the cavity of the tympanum (middle ear) and the Eustachian tube are developed. The neck is thus built up of continuous lateral walls. From the second branchial arch are developed the styloid process, the stylo-hyoid ligament, the lesser cornua of the hyoid bone; the third arch forms the large horns and the body of this bone; the fourth arch assists in forming the soft tissues of the neck. The larynx, trachea and adjacent glands are developed from other centres of fœtal growth. The primary origin of these tumors necessarily must correspond to the location of these branchial clefts, and clinical experience has demonstrated that they are most frequently found in the region of the second and third branchial clefts, in the vicinity of the larynx,pharynx,and in intimate relation with the sheath of the large vessels of the neck, in contra-distinction to dermoid cysts about the orbits and in the scalp, which are superficially located (Langenbeck). In the case of a young lady, Langenbeck observed a cyst situated on the left side of the epiglottis and pharynx, which occupied one-half of the floor of the mouth, and which projected from underneath the chin on that side in the shape of a smooth tumor of the size of a fist. Respiration, deglutition, and motion of the tongue were greatly impeded. The cyst contained eight ounces of atheromatous matter. The same author states that he has frequently found these tumors attached to the greater horn of the hyoid bone or to the thyro-hyoid ligaments, localities which plainly indicate that they originated from remnants of former branchial clefts.

We shall have frequent occasion to allude to the intimate connection of the tumors with the sheath of the large vessels of the neck, consequently it is is very important to study their anatomical relations to these important structures. The jugular vein is surrounded throughout its whole course in the neck by a distinct and separate sheath of areolar tissue, which, on the outer side of the artery, penetrates into the deep tissues of the neck, thus completely separating the two vessels. The jugular, enclosed in its sheath, may be easily drawn over the artery toward the median line without producing any change of location of the artery. The vein being in front of the artery, and covering half of the lumen of the latter, it can be readily understood that when the vein is drawn forward with its sheath, it can be injured while the artery is not exposed to the same danger. Branchial cysts of the second and third clefts are always observed in the sheath of the large cervical vessels, usually in the carotid triangle above the omo-hyoid muscle. They appear to occur more frequently on the left side of the neck. Their shape is invariably round or oval, with a smooth surface. The contents of these cysts being either fluid or semi-fluid, fluctuation can be felt, more particularly if the tumor is palpated between two fingers from the pharynx or the floor of the mouth and the external surface. Only lateral motion of the tumor is possible, on account of its peculiar attachments to the deep tissues of the neck. If the tumor is only of moderate size, the pulsations of the carotid artery can be felt on its inner margin. If it is large, it overlaps the artery, when the pulsations of the vessel are communicated to the tumor.

HISTORICAL NOTES.

Nearly forty years ago Roser of Marburg made the statement that many of the so-called ranulas about the base of the tongue, the mucoid and dermoid cysts of the upper cervical region, are due to imperfect closure of one of the branchial tracts. All of these tumors he included in one group under the name of branchial cysts. He described three distinct conditions which may result from entire absence or imperfect obliteration of any of the branchial clefts.

1. Branchial fistula in case the entire tract remains patent.

2. Cystic fistula in case only one extremity of the cleft is obliterated while the other communicates with the pharynx or the cutaneous surface.

3. Branchial cysts in the event the tract is closed at both ends while between them it remains open, and by proliferation from the inner surface produces an accumulation—the contents of the cyst.

Although these tumors are by no means common, a sufficient number of well authenticated cases have been placed on record which remove all doubt as to the etiological relations which exist between imperfectly obliterated branchial clefts, the serous, dermoid, and the so-called deep-seated atheromatous tumors, of congenital origin and located in the regions formed by the branchial clefts. The tumors have since been made a special object of

study by B. von Langenbeck, Luecke, Gurlt, Virchow, Schede, Esmarch and Heusinger.

CLASSIFICATION OF BRANCHIAL CYSTS.

Branchial cysts should be classified according to their contents. The cyst walls being lined with epithelium, the only histological element in the contents are epithelia. In most instances the epithelia lining the cysts belong to the tesselated variety, but Rehn discovered in a blind congenital fistula ending near the mucous membrane of the pharynx, ciliated epithelium;and Neuman found cylindrical and pavement epithelium in two cystic tumors of the neck, one of which was congenital, while the other was developed in later years. The presence of ciliated epithelium may be explained by assuming its origin to have been in the upper part of the cleft, the fornix pharyngis, where these fistulæ oftentimes end, and where ciliated epithelium normally exists. The lower end was probably lined with flat epithelium.[1] The physical and chemical properties of the cyst contents will depend largely on the amount and degree of retrograde transformation of the epithelial proliferation. In classification it is, however, important to remember that like in ordinary retention cysts, the contents of a branchial cyst are liable to undergo changes depending on the retrograde changes of the epithelial product, hæmorrhage and other transudations into the sac, or the occurrence of inflammation in the cyst wall itself. It is only during the earliest stage that the specific secretion is found in its purity. In the course of time the original character of the contents of the cyst may be completely lost by retrograde metamorphosis, or the addition of new material. Clinical experience and pathological examinations have shown that these tumors, according to the physical properties of their contents may be divided into the following four principal varieties:

1. Mucous cysts; 2. Atheromatous cysts; 3. Serous cysts; 4. Hæmato-cysts.

Variable as the contents of these different varieties may be, more uniformity is observed in the structure of the cyst wall. In the primary stage of the affection it consists of a connective tissue capsule with an epithelial lining on its inner surface, and a delicate layer of a loosely connected reticulum of connective tissue (pericystium) which is very vascular and covers the outer surface of the cyst. A high degree of intra-cystic pressure may cause atropy of the epithelial lining and thinning of the walls of the sac and, on the other hand, inflammatory proliferation produces great thickening of the cyst walls. While dermoid cysts contain the characteristic secretions of the skin and its appendages, the branchial cysts only contain the products of the epithelial cells because their walls do not no contain any hair follicles, sebaceous or sweat glands, as the branchial clefts close before these appendages are formed.

1. *Mucous branchial cysts.* As a primary formation this form of branchial cysts is usually found in the upper branchial clefts. Their origin is attributable to an imperfect closure of the upper portion of the branchial tract, consequently the cyst wall may derive its lining from the mucous membrane of the pharynx, and the rentention of the physiological secretion produces a mucous cyst. Many of the so-called ranular cysts about the base of the tongue belong to this variety of tumors. Among the six types of branchial cysts mentioned by Roser, the third variety consists of a cystic formation which extends from under the tongue towards the neck; the sac assumes an hour-glass shape, the constricted portion connecting the cervical with the lingual portion of the cyst. By making alternate pressure over the cyst, the contents may be squeezed from one portion of the cyst into the other. Congenital mucous cysts in the region of the base of the tongue and sides of the larynx in the majority of cases are due to an imperfect closure of the upper portion of one of the branchial tracts.

2. *Atheromatous branchial cysts.* This form of branchial cysts has been described by some authors as deep-seated atheromatous cysts of the neck (Schede), and dermoid cysts of the sheath of the large vessels of the neck (Langenbeck). They are usually located in the second and third branchial tracts in the region of the hyoid bone, and intimately connected with the sheath of the large cervical vessels. These cysts contain an atheromatous material resembling the contents of an ordinary retention cyst of the skin, with this difference, however, that they never contain anythig which would indicate the presence of hair-follicles, as lanuginose hair or sebaceous material, or any of the more complicated products of dermoid cysts. Schede[1] has made a careful microscopical examination of the sac of a deep-seated atheromatous branchial cyst. The specimen was hardened in Müller's fluid. The inner surface of the sac was lined with layers of tesselated epithelium.

1 Kœnig, Lehrbuch der spec. Chirurgie. Berlin, 1878 Vol. i. p. 454.

1. Ueber die tiefen Atherome des Halses. Archiv. f. Klin. Chir., vol. xiv. p. 1.

The deeper layers were composed of oval or spindle-shaped cells with delicate filiform processes which were arranged in a perpendicular direction to the walls of the cyst. The nuclei were either longitudinal and granular or round, completely filling the centres of the cells. If any attempts were made to tear the epithelia from their points of attachment it was observed that the different layers were arranged in such manner as to appear dovetailed. The superficial layers showed large polygonal cells with distinct nuclei. The portion of the capsule next to the epithelia consisted of thick concentric layers of thin fibrilated areolar tissue. Occasionally the fibrils were wanting, their space being occupied by a pale homogeneous mass of a granular substance. Outside of this structure the capsule was composed of strong bundles of connective tissue which were arranged in concentric layers, but forming a distinct reticulum. The blood-vessels in the walls of the sac were scanty, small in size, with exceedingly thin walls penetrating as far as the epithelial lining. No trace could be found of hair follicles, sudoriparous, or sebaceous glands.

For the purpose of furnishing a clear clinical picture of this form of branchial cysts I will give a synopsis of a few typical cases.

Langenbeck's case.[1] The patient was a female 17 years of age. Suffered from enlargement of cervical glands during her 12th year. Two years before the operation a soft swelling was noticed in the region of the left carotid triangle, which soon increased to the size of a hen's egg. A year later the whole neck, but especially the left side, was swollen, and the tonsils at the same time were considerably enlarged. Pains in the neck, and frequent attacks of angina had preceded these symptoms. The usual medicinal treatment in such cases and a visit to Kreuznach improved her general health, but the tumor increased in size, became more prominent, and showed distinct signs of fluctuation. At the time of operation, two years after its appearance, the tumor was oval in shape, and extended from the angle of the jaw downwards to a line on a level with the cricoid cartilage. Externally it was not very prominent, but on further examination it was evident that its base was firmly attached to the sheath of the large cervical vessels. The tumor could be felt through the walls of the pharynx, where fluctuation was distinctly felt. The anterior margin of the sterno-cleido-mastoid was somewhat elevated by the outer portion of the tumor which received a distinct impulse from the underlying artery. The pulsations were felt most distinctly when the head and neck were turned toward the opposite side and in a backwark direction. The tumor was punctured and a mass of yellowish semi-solid substance escaped, the solid portions of which were composed of epithelial cells and cholesterine crystals. The puncture was kept open by a linen tent. Later injections were made into the interior of the cyst of tr. iodinii, and when this produced no effect a concentrated solution of nitrate of silver was tried with no better result. The wound was kept open for a long time, but in spite of all efforts the cavity showed no tendency to close. A year later a seton was passed through the tumor, but without success, for as soon as it was removed the openings closed, and the cyst increased to its former size, causing pain and pressure, necessitating an incision which gave exit to a large quantity of fœtid pus. For four months the wound was kept open and iodine injections were again resorted to, but with no better effect than before. Nearly three years from the time the cyst was first noticed it was removed by extirpation. An incision was made along the anterior border of the sterno-cleido-mastoid, extending from the angle of the jaw towards the cricoid cartilage. In consequence of the long-continued inflammation, the cicatricial adhesions between the cyst walls and the surronnding tissues were found very firm, and could only be separated by a tedious and difficult dissection. When an attempt was made to isolate the tumor from the deep structures it was found to be intimataly connected with the sheath of the internal jugular vein, so that, on making traction, the vein was elevated from its bed while the artery remained in situ. The base of the tumor and the vein appeared to form one coherent mass. The tumor was carefully drawn forward, the sheath of the vein opened and the attachments separated with the handle of the scalpel. The cyst extended upwards close to the jugular foramen and was attached to the styloid process. When the tumor was removed, the parotid gland, the styloid process, the submaxillary gland, and the right wall of the pharynx became visible in the wound. The internal jugular vein, deprived of its sheath, was seen completely isolated throughout the whole length of the wound. The carotid artery enclosed in its sheath lay also exposed in the wound. Hemorrhage was moderate. Adhesive strips and lint compress constituted the dressing. The patient recovered without any untoward symptoms.

1. Beiträge zur chir. Pathologie d. Venen. Archiv. f. Klin. Chir., vol. i. p. 1.

Langenbeck's case.[1] This was again a female, 20 years of age, otherwise in robust health, who consulted von Langenbeck in May, 1855. When nine years of age a tumor appeared on the left side of the neck, which rapidly increased in size. One year later Dieffenbach made an attempt to extirpate it, but when he discovered that it was adherent to the deep tissues of the neck he desisted from any further attempts to remove it, and contented himself with making an incision into the sac and emptying its contents, which had the appearance of a thin gruel. The cyst refilled and was again reopened by means of the actual cautery, the contents being of the same character as before. The wound was kept open for a number of years, and the cyst discharged continually. Finally the opening closed, and the tumor disappeared almost completely until, in 1854, it again increased in size, and when first seen by Langenbeck, it was as large as a pigeon's egg. It occupied the left side of the neck on a line with the upper border of the thyroid cartilage, and between it and the inner border of the sterno-cleido-mastoid. It was firm, but imparted to the touch an indistinct sense of fluctuation. The cicatrices resulting from previous operative procedures had produced firm adhesions between the sac and the skin. With some difficulty the tumor could be separated from the artery. Its location rendered it probable that it was connected with the sheath of the cervical vessels. As the tumor increased and became more painful, it was extirpated May 10, 1855. The unyielding cicatricial tissue was included in the incision and removed, the fascia of the neck was divided and the inner border of the sterno-cleido-mastoid exposed. It was found extremely difficult to sever the adhesions around the cyst walls, and the sac was ruptured on the inner surface during one of these attempts. The collapsed sac was seized with sharp hooks and drawn over toward the median line of the neck, and while the sterno-mastoid muscle was pushed in an opposite direction the dissection was continued carefully toward the base of the tumor. A broad pedicle connected the cyst with the large cervical vessels. With the index finger the carotid artery was pushed backwards and outwards with a view to keep the jugular vein, which was on the outer side of the artery, at a safe distance. As the pedicle was being divided with the scissors a sudden gush of dark venous blood welled up from the bottom of the wound, which in a moment completely flooded the neck and the operating table. The operator immediately made digital compression above and below the wound, while an assistant made direct compression with a sponge. The hemorrhage soon ceased and the sponge was carefully removed. A careful inspection of the floor of the wound showed that the jugular vein was completely out of sight, covered by the muscular tissues of the neck, and as the hæmorrhage had ceased, it was not deemed advisable to resort to any severer measures for the purpose of guarding against another attack of hæmorrhage. After removing all coagula the wound was filled with lint, its margins were drawn together with strips of adhesive plaster, over which a compress was applied. An ice-bag was placed over the seat of operation. The wound healed kindly and the patient made a complete recovery. An examination of the cyst revealed that a piece of the anterior wall of the internal jugular vein, four lines in length, and two and one half lines in width, was attached to its under surface. Professor A. Lucke, then Langenbeck's assistant, in a paper on "Atheromatous Cysts of the Lympatic Glands,"[1] makes the following comments on Langenbeck's first case: The attempt to remove the tumor by puncture and subsequent injections of iodine had failed, hence extirpation was resorted to. Traces of the former operative procedures may still be seen in the tumor, and its peculiar structure renders evident why simple puncture and injection proved unavailing. The external appearance of the tumor presents a greater similarity to an hypertrophied lymphatic gland than to an atheromatous or dermoid cyst. It has the same oval shape, and the different processes of areolar tissue that I have observed in cases of lymphatic sarcomata. It is surrounded by a thin capsule of areolar tissue and before removal gave evidence of distinct fluctuation. To differentiate between a tumor of this kind and a suppurating hypertrophied lympatic gland is, even after removal, extremely difficult if not impossible. Errors in diagnosis are therefore not only possible but often unavoidable, but fortunately they are of no great consequence in respect to the treatment. When an incision in the tumor was made a purulent fluid was discharged, which under the microscope presented the characteristic atheromatous matter.

Gurlt[2] mentions the great similarity exist-

1. Op. cit., p. 25.

1. Ueber Atheromcysten der Lymyphdruesen Archiv. f. Klin. Chir. vol. i, p. 356.

2. Die Cystengeschwulste des Halses. Berlin, 1855, p. 268.

ing between the contents of these tumors and those of ovarian cysts. We see in our case under the microscope, fat-cells, large masses of epithelia either without or with multiple nuclei. Many cells are filled with free molecular fat, others contain fat-cells, and occasionally large nuclei are seen. We also observe the well-known crystals of cholesterin and small prismatic crystals which seem to be some form of inorganic salt, also lime in granular form. He quotes F. Hoppe, who has made a careful chemical examination of the contents of an atheromatous cyst, and has found the following to represent its chemical composition: 1.3953 grammes of atheromatous material contained the following: 0.2225 alcoholic extractive matter, 0.1235 ethereal extractive matter, 0.2005 aqueous extractive matter, 0.8555 insoluble matter. In these different ingredients he found leucin, tyrosin, cholesterin, myelin, palmitin, and stearin. Usually these cysts constitute spherical cavities surrounded by a thin smooth membrane, rarely with thickened walls or wart-like elevations, or fan-shaped protuberances, but in this instance we see cavities of a greater or less size embedded in a dense parenchyma of a reddish white color, which constitutes the bulk of the tumor. The cavities, are distinctly separated from each other, and are not in contact with the external capsule of areolar tissue. Wart-like vegetations cover the cyst wall and protrude from it. Sections through the parenchyma show small spaces separated by areolar tissue and filled with granular matter. The contents of these follicles are lymph corpuscles and amyloid granules. These latter were soluble in glycerine, but remained unaffected by acids and alkalies.

In opposition to the views advanced by Luecke, it may be stated that the consecutive attacks of inflammation and suppuration so modified the contents and altered the structure of the cyst walls that the primary structures of the tumor was lost. The cyst wall by chronic inflammation became thickened, and the tissue proliferation of the adjacent structure may have invaded the interior of the sac and thus rendered an anatomical diagnosis exceedingly difficult or impossible. The location of the tumors, the clinical history, as well as the age of the patients, render it more than probable that both of Langenbeck's cases were atheromatous branchial cysts.

Schede calls these cysts deep-seated atheromatous cysts of the neck, without reference to their origin from imperfectly closed branchial clefts. I will describe in brief the three cases that came under his observation at Volkmann's clinic.

Volkmann's case reported by Schede.[1] The first case was that of a young man of 17 years of age, who had always enjoyed perfect health. Two years before the operation the patient noticed a small smooth and round tumor which began to develop on the side and upper portion of the neck close to the anterior margin of the sterno-cleido-mastoid. It was painless, somewhat movable, and soon increased in size so as to give rise to deformity, and difficulty in deglutition. In February, 1870, it had reached the size of a goose-egg, presenting a smooth surface and a round or oval contour. The tumor was punctured at this time with a trocar, when about 30 grms. of cream-like fluid were removed. The puncture was followed by an injection of tr. iodinii which was again withdrawn after remaining for a few minutes. The microscope showed an abundance of large flat cells in the fluid removed. In a month later the tumor had returned to its former size. A longitudinal incision was now made over the tumor and the cyst extirpated. The adhesions were not firm, and the operation was completed wlthout meeting with any difficulties. The tumor was situated upon the sheath of the large cervical vessels, but was easily separated from them. Posteriorly it extended to a point between the pharynx and trachea. The wound healed promptly and the patient recovered completely.

Volkmann's second case reported by Schede.[2] This was also a young man 15 years of age, who, 18 months previously, noticed a small tumor on the anterior margin and about the middle of the sterno-cleido-mastoid. It increased slowly in size and resisted all ordinary attempts at treatment. When he came under Volkmann's care it had attained the size of a hen's egg. It was painless, oval in shape, with a smooth surface, and presented evidences of fluctuation. The extirpation of the tumor was again done and presented no difficulties whatever, as the attachments were not firm and could be easily separated. Posteriorly it reached as far as the cervical vertebræ, which could be plainly felt after the removal of the cyst. The walls of the sac were very thin, and a microscopic examination of the contents revealed the presence of epithelial cells in a state of fatty degeneration.

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1 Ueber die tiefen Atherome des Halses. Archiv. f. Klin. Chir., vol. xiv. p. 1.

2 Op. cit. p. 3.

Volkmann's third case reported by Schede.[1] This case was a female, 22 years of age, who, when 11 years old, noticed a small tumor in the left upper cervical region. Irritating applications had induced inflammation, suppuration, and a spontaneous evacuation of a thin sanious pus, wherenpon the tumor disappeared. In her 17th year the tumor reappeared in the same place and, in spite of all treatment, increased in size, encroaching somewhat upon the cavity of the mouth. At the time the operation was performed it extended from the mastoid process to the angle of the jaw, being about 2½ inches in length and 1½ inches in breadth. The tumor was painless and movable, moderately tense, and through the mouth fluctuation could be detected. The cyst was removed through an incision parallel with the lower margin of the jaw. The adhesions in front and on the sides of the tumor were slight, but the attachments to the styloid process were firm, and were severed with the finger. The sac was opened and contents evacuated to facilitate the detachment of the cyst from the deep structures beneath; this was done with curved scissors. The tumor was not adherent to the sheath of the large cervical vessels in this case. Like in the preceding cases, the contents were composed largely of epithelial cells. Recovery was prompt and permanent.

The cases reported by Schede furnish an instructive and practical illustration of the fact that the firm adhesions to the sheath of the deep cervical vessels which were observed in Langenbeck's cases are the direct result of prolonged irritation and inflammation in the walls of the sac and the adjacent tissues, and that the removal of these tumors can be accomplished with comparative ease provided such inflammation has not preceded the operation.

Virchow's case.[2] Under the name of auricular teratoma of the neck, Virchow describes a branchial cyst in the person of a seamstress, 24 years of age. It was first noticed when the patient was in her 14th year, when it was as large as a filbert. It increased slowly in size, and when first seen by Virchow it had attained the size of a goose-egg. It was located between the angle of the jaw and the mastoid process, and was firmly attached to the sheath of the carotid artery. The cyst was filled with a creamy yellowish fluid which contained free fat and epithelia. The walls were studded with sebaceous follicles, especially on the side toward the carotid artery. The portion attached to the sheath of the vessels contained a plate of cartilage, which resembled the cartilage of the ear, hence he designated the tumor as an auricular teratoma. Virchow attributed the origin of this and analogous growths to an imperfect obliteration of one of the branchial clefts. In his classification he includes the cysts which are developed from branchial clefts among the teratoid tumors.

Three cases of atheromatous branchial cysts have come under my own observation.

Case I. Mrs. H., æt 36, German. Family history reveals no tendency to congenital malformations. General health excellent. About a year ago the patient discovered a small tumor on the right side of the neck between the angle of the jaw and the larynx, which slowly increased in size, and after a few months became the seat of an acute inflammation which terminated in, suppuration requiring an incision for the relief of urgent symptoms. The fluid which escaped consisted of pus mixed with a gruelly substance. Prompt relief followed the incision. The inflammatory symptoms subsided and the tumor diminished in size. In a few weeks the opening closed, leaving a small and painless swelling. The same symptoms were repeated about four months subsequently. When the patient came under my observation during the summer of 1883, I found a tumor about the size of a hen's egg located between the angle of the jaw and the larynx, resting directly upon the large vessels of the neck, as was evident from the distinct pulsations which it received and which could be seen and felt. The porterior portion was under the sterno-cleido-mastoid. Over its centre was seen the scar which had resulted from the previous incisions. The swelling presented a regular smooth surface and oval outline with the long diameter parallel to the cervical vessels.

It was only slightly movable from side to side and perfectly immovable from above downward, showing that it had a firm point of attachment to the deep tissues of the neck. Fluctuation could be detected on the outer surface and also through the mouth. The original location corresponded to the third branchial cleft. As it had on two different occasions undergone acute inflammatory changes without any benefit resulting from them, the extirpation of the cyst was deemed the only measure which promised a permanent result. The operation was done under

1 Op. cit. p. 3.

2 Virchow u. Hirsch's Jahresbericht, 1866, vol. ii. p. 418.

antiseptic precautions. A straight incision was made over the tumor parallel to the sterno-cleido-mastoid. The cyst was found firmly adherent to the surrounding tissues as the result of the antecedent inflammatory infiltrations and required much time and patience in its separation. After isolating it from all attachments on its sides, it was seized with a tenaculum forceps and drawn forward and toward the median line of the neck, while the sterno-cleido-mastoid was held in an opposite direction so as to afford easy access to its base. The attachments here were very firm, and it appeared as though the base of the tumor and the large cervical vessels underneath were imbedded in a mass of cicatricial tissues. Keeping as close to the cyst wall possible, the dissection was continued very carefully, proceeding mostly with blunt instruments. When nearly one-half of the pedicle was separated in this manner, we were suddenly surprised by a tremendous gush of dark venous blood which in a second flooded the whole field of operation. It was only too evident that the internal jugular vein had been torn, and, for the purpose of preventing further loss of blood and to guard against instant death by admission of air into the vein, I made firm digital compression above and below the injured vein, while an assistant pushed a sponge into the wound. Hæmorrhage was controlled in this manner, and as soon as I could be relieved by one of my assistants I removed carefully the sponge, and, after locating as nearly as possible the exact seat of bleeding, I seized the vein with some of its adjacent tissues with a stout pair of hæmostatic forceps. I was fortunate enough to grasp the bleeding point at the first attempt, and the hæmorrhage was completely controlled. The tumor was now removed, and by making slightly traction on the forceps the vein was drawn forward and a catgut ligature applied without isolating the vessel. I was unable to ascertain the exact size or direction of the wound in the vein, but the ligature arrested the hæmorrhage promptly and permanently. The wound was thoroughly irrigated, and, like in Langenbeck's case, the vein seemed to disappear underneath the deep tissues of the neck. In the wound could be seen the œsophagus, lateral wall of the larynx, carotid artery in its sheath, and the great horn of of the hyoid bone. After suturing and draining the wound a graduated compress was applied. For the first 24 hours after the operation the patient suffered from intense headache in the corresponding side, which induced me to believe that the circulation in the vein had been completely interrupted, either by the ligature alone or by the formation of a thrombus at the point of ligation. After the first 24 hours the patient suffered no further inconvenience. The wound healed by primary union, and the recovery has been permanent and complete. There is no question but that the adhesions of the cyst with the sheath of the cervical vessels were due to the attacks of acute inflammation which had preceded the operation on two different occasions. A microscopical examination of the contents showed flat epithelial cells, cholesterine crystals, fat granules, and a mass of debris, the product of epithelial degeneration. The cyst wall was composed of connective tissue, thickened and infiltrated with embryonal elements and lined with flat epithelial cells.

Case II. Mrs. P. æt 22, American. Family history good, especially in reference to congental deformities. About a year ago she noticed on the right side of the neck near the angle of the jaw a small deep-seated tumor, which after attaining the size of a filbert, remained stationary, at times even diminishing somewhat in size. About two months ago it began to increase in size, and became the seat of a feeling of distress and pain. When she presented herself for examination, Dec. 13, 1883, it was about the sixe of a hen's egg. It is located over the bifurcation of the common carotid artery, pulsates distinctly, and makes pressure against the floor of the mouth and larynx, and reaches from the lower jaw to the upper border of the thyroid gland. Fluctuation is distinct, and can be distinguished through the mouth. The skin over it is natural in appearance and movable. At the base of the tumor firm attachments fix it to the deep tissues of the neck, which prohibit any motion from above downward, while slight lateral motion is possible. The history of the case, the age of the patient, the location of the tumor in the region of the third branchial cleft, appeared to furnish sufficient evidence to justify me in diagnosing an atheromatous branchial cyst. The patient objected to an operation and I have not been able to ascertain the subsequent history of the case.

Case III. *Branchial cyst in the region of the second branchial cleft.* Mary H. æt. 25, German. Her family history is good, especially regarding congenital malformations, as tumors or fistulæ in the cervical region. Patient has always appeared round and full underneath the chin, but during the last four years a tumor has been growing rapidly on the floor of the mouth, until, at present, it is considerably larger than a goose egg. The mouth is

completely filled by it, the tongue is pressed against the palate, its movements are limited, only the tip of it being visible at the upper border of the tumor, and speech and deglutition are greatly impeded.

Laterally, the tumor extends to near the angles of the inferior maxillary bone, and downward it overlaps the larynx and upper trachea, entirely obliterating the round contour of the upper cervical region. It is painless, and distinctly fluctuating to the touch, presents a smooth surface, and gives rise to no further inconvenience except from its mechanical interference with speech and deglutition. When the patient opens her mouth the apertures of Wharton's ducts are plainly visible on each side of the median line, and by exerting lateral pressure upon the sub-maxillary glands the patient can expel a stream of saliva from them. Previous treatment, as external application of iodine, etc., had had no effect on the growth.

Operation. Desiring to avoid any deformity resulting from an external cicatrix, it was decided to remove the tumor through the mouth. A linear incision was therefore made in the median line, from above downward, extending from the tip of the tongue to the symphysis of the lower jaw, carefully avoiding the ducts of the salivary glands. When the sac of the tumor was reached, the adhesions existing between it and the surrounding tissues were easily severed with the handle of the scalpel. After freeing about one-half of the tumor in this manner it was found that it would be impossible to remove the tumor in its entirety in this manner, owing to its immense size. The sac was therefor opened and a large quantity of its gruelly contents removed by pressure. The operation then proceeded without any difficulty until the entire cyst was removed. It was now noticed that the cyst was constricted in its middle by the inferior maxillary bone, the upper and lower portions of it bulging out on both sides of the constriction. There was no hæmorrhage worth mentioning. The body and great wings of the hyoid bone could be plainly felt in the posterior recess of the wound. The cyst wall was thin, its external surface quite vascular. The microscopical examination of the contents of the cyst, as well as the primary location of the tumor, revealed its branchial origin. The wound was united with sutures, and a drainage-tube inserted. A compress underneath the chin fastened by a roller bandage, completed the dressing. The next day considerable swelling existed in the mouth, and had caused the sutures to cut through the tissues. The sutures were therefore taken out and in place of the drainage-tube a pledget of iodoform gauze inserted, with the effect of entirely destroying the unpleasant odor which had arisen during the first 24 hours. In a few days the œdema subsided and the wound in the floor of the mouth had healed by granulation. The difficulty of swallowing and speaking disappeared and nothing in the looks of the young lady shows any traces of the deformity which was disfiguring her face and neck previous of the operation.

[TO BE CONTINUED.]

CORRESPONDENCE.

LONDON LETTER.

Editors Review.—We are in the midst of our dull season. All the leading practitioners are away, having however taken care not to go till their patients had started, and there are only a few unfortunate juniors left behind to do all the hospital work, as they can. Such has been my fate for the past month. Belonging as I do to two metropolitan hospitals I have now the privilege of doing double work at each for at least a month. The additional work was not out-patient work, two mornings and two afternoons a week at that are quite enough. But the charge of in-patients though not laborious, involves a good deal of responsibility, and is no light addition to the other duties.

Each year when one of my seniors ask me to do his work for a month or so in the wards I always wonder when it will occur to offer him to me a share of the fees that he receives for teaching. I happen to belong to one of the schools where the members of the full staff pocket all of the hospital fees paid by the students, leaving the assistant physicians and assistant surgeons to do as is necessary, the bulk of the real clinical teaching for nothing. I suppose it will all come right some day, but at present we juniors, at the school to which I belong, have not got sufficient power to improve matters. We did make a feeble attempt a few years ago, but I do not think we made matters much better by it.

The Copenhagen Congress turned out a greater success than even the promoters had anticipated. There were so many ugly rumors afloat, as to the influence that the cholera in France would exert in keeping people away, that there were not a few who were ready to advise that it should be postponed for a year. I learn that my own countrymen did not shine particularly either in point of numbers, or in respect of their linguistic attainments. French seems to have been universally

adopted, the Scandinavians never speaking German if they can help it, though they know the language perfectly well. Politics cannot altogether be banished on such occasions, and this no doubt partly accounts for the warmth of the reception given on every occasion to Pasteur, as compared with Virchow. This too no doubt partly influenced the choice in favor of Washington for the next Congress, as it was currently rumored that the French would not go to Berlin.

I think every one is very much pleased that the next meeting should be at Washington. The only objection, and it is a serious one, is the great distance. To a man who can only get away from home for a month, and there are plenty who cannot afford more than half that time, an undertaking of this kind which would only leave him a week for spending with his family, is almost out of the question; so that it is greatly to be feared, that the meeting will not be such a representative one as could be wished. For my own part, I should be glad to hear that the Congress would not be held till 1889 or even later. I think a five-year's cycle would be quite soon enough. At present we have rather too much of Congresses, and the biennial arrangement which held up to the London Congress was simply absurd.

To-day is "Hospital Saturday," on which collections are made in the streets and devoted to the hospitals of the metropolis. Collecting boxes are put at the corners of important streets, and occasionally in crowded thoroughfares, and in many instances ladies of high birth and education sit by them and note the the number of contributors. They are to be pitied to-day, for it is, and has beeen all day, raing cats and dogs. This collection is supposed to be made from the working men of London. What proportion of the contributors are really workingmen we have never been told, still less what proportion of the contributions come out of the pockets of the working classes. Without in any way disparaging the excellent intentions of the persons who founded it and who have taken so much trouble to secure its success, it may be doubted whether the "Hospital Saturday" is a movement which is entirely deserving of praise. Some months ago at a meeting of the Hospitals' Association a paper was read by Mr. Burdett showing the comparative expenses of the "Hospital Saturday" and Sunday Funds from which it appeared that the former is collected at a very much greater cost than the latter, and he advocated an amalgamation of the two, as calculating to save a very considerable amount in working. More recently another charge has been brought against them by a writer in yesterday's Times, who points out that the managers of the fund insist upon receiving from the hospitals a much larger share of out-and in-patient letters than the amount given in each case to the hospital would entitle them to. There is no reason to doubt the truth of this charge. In these days of competition it is "nothing for nothing and mighty little for sixpence," and those who collect for public charities form no exception to the rule. I have known a case where a clergyman wrote to the secretary of a hospital, and said that he had a small sum collected in his church for the hospital, and asked what privileges it would entitle him to, and on being told that the amount was too small, (it was under ten pounds), as a donation to give him any of the privileges of a governor, he withdrew his promise and sent the money somewhere else, or pocketed it for aught I know to the contrary, and I should think he would have been puite capable of doing this.

A correspondent of the Pall Mall Gazette who describes himself as an amateur maniac has lately been describing what he calls his experiences in a mad-house. He professes to have feigned madness, in order to get into an asylum, so as be able to be able to write an account for the paper. Of course it is not the first time by any means that this has been done, and the object doubtless was to obtain evidence against the working of the Lunacy Acts. If his statement is true, that he did feign insanity and got put into an asylum, then the man who signed the order for his admission ought surely to be liable to punishment for making statements in that order which he knew to be false. On the whole I should think he must have been very much disappointed with his three days' experience, for at the end of that time the friend who had signed the order came and took him out again. He doubtless expected to be able to startle the readers of his journal with thrilling tales of the deeds of darkness that went on inside, and of the numbers of perfectly sane people incarcerated, but he is not able to unfold any such tales. Some of his conclusions are worth paying attention to, others are not. Of these the suggestion that every man should be examined in mental diseases before obtaining a license to practice is good, and the suggestion that the order should always be signed in the presence of a magistrate is not bad, but that in every case before being incarcerated a person should be examined by a jury is foolish and would be more likely to lead to mischief than anything else. If there is one thing quite certain it is that people do not like to have it blazed abroad that their relatives are insane, and sooner than do that they would run the risk of a murder or suicide and keep them at home. No scheme which requires publicity or the making known the fact to a considerable number of the community will ever be approved or accepted by those who are of the same way of thinking as Yours truly, R. M.

BOOKS AND PAMPHLETS RECEIVED.

A TEXT-BOOK OF PATHOLOGICAL ANATOMY AND PATHOGENESIS. By Ernst Ziegler. Translated and edited for English students by Donald MacAlister, M. A., M. D.

Wood's Library of Standard Medical Authors, September number. Pub. by Wm. Wood & Co., New York.

A YEAR BOOK OF THERAPEUTICS for 1883. Edited by Royal W. Amidon, M. D. Pub. by G. P. Putnam's Sons, New York.

A YEAR BOOK OF SURGERY for 1883. Edited by C. H. Knight, M. D. Pub. by G. P. Putnam's Sons, New York.

THE MEDICAL DIRECTORY OF PHILADELPHIA for 1884. Edited by S. B. Hoppin, M. D. P. Blakiston, Son & Co., Philadelphia.

STUDENTS' MANUAL OF ELECTRO-THERAPEUTICS, embodying lectures delivered in the course in Therapeutics at the Woman's Medical College of the New York Infirmary. By R. M. Amidon, A. M., M. D. Published by G. P. Putnam's Sons, New York.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF WEST VIRGINIA. Seventeenth Annual Session held in Clarksburg, May 21 and 22, 1884.

A SYNOPSIS OF THE MEDICAL BOTANY OF ILLINOIS by J. M. G. Carter. M. A., M. D., Ph. B., Waukegan, Ill.

A MANUAL OF OBSTETRICS. By Edward L. Partridge, M. D., with sixty illustrations. Wm. Wood & Co., New York.

A PRACTICAL TREATISE ON DISEASES IN CHILDREN. By Eustace Smith, M. D. Pub. by Wm. Wood & Co., New York.

HYPERÆSTHESIA. A paper read before the Medical Association of the State of Alabama. By James T. Searcy, M. D. Reprint from Transactions of the Association.

PREVENTION OF CHOLERA. Circulars issued by the Wisconsin State Board of Health.

CONTRIBUTIONS OF PHYSICIANS TO ENGLISH AND AMERICAN LITERATURE. By Robert C. Kenner, M. D. Reprint from Medical and Surgical Reporter.

THE NATIONAL DISPENSATORY. Containing the natural history, chemistry, pharmacy, actions and uses of medicines, including those recognized by the Pharmacopœas of the United States, Great Britain and Germany, with numerous references to the French Codex. By Alfred Stillé, M. D., LL. D., and John M. Maisch, Ph. D. Third Edition thoroughly revised with numerous additions. 311 illustrations. Published by Henry C. Lea, Sons & Co., Philadelphia. Chicago: Jansen, McClurg & Co.

HERBERT SPENCER ON 'AMERICAN NERVOUSNESS. A Scientific Coincidence. By George M. Beard, A. M., M. D. Published by G. P. Putnam's Sons, New York. Chicago: Jansen, McClurg & Co.

MEMOIR ON THE NATURE OF DIPHTHERIA. By Drs. H. C. Wood and H. F. Formad, of Philadelphia.

APPENDIX A of the National Board of Health for 1882.

ITEMS.

—The meeting of the American Gynecological Society takes place in Chicago Tuesday, September 30, 1884. The department of the "REVIEW" that is to be conducted by Dr. George J. Engelmann will embody the proceedings, etc., as taken by our stenographer.

—GREAT ST LOUIS FAIR OCTOBER 6-11, 1884. —We are pleased to acknowledge a cordial invitation from Mr. Chas. Green, President of the Great St. Louis Fair, which opens October 6 and closes October 11, 1884. This colossal exhibition of Live Stock, Agricultural Implements, Dairy and Creamery Products, Textile Fabrics, Apiarien Supplies, Minerals, Chemicals, and Geological Specimens will be the largest ever made on this continent. All railroads running to St. Louis have made a one fare rate for the round trip, and half rates on freight. Any of our readers desiring a copy of the illustrated premium list may secure one by writing to Festus J. Wade, Secretary 718 Chestnut St., St. Louis, Mo., and stating that they are readers of this paper.

—INFLUENCE OF OCCUPATION ON PHYSICAL DEVELOPMENT—The data obtained by the Antropometric Committee of the British Association reveal some curious facts respecting the influence of occupation upon physical development. As a rule the inhabitants of the country are taller and heavier than those of the large towns; but London is an exception, and seems to exert an attraction that draws in the more vigorous part of the country population. The metropolitan police, as a rule are nearly as tall as the laborers of Galloway—the tallest of Britons—and twelve pounds heavier. The members of the Fire Brigade who need not be be so solid, but are expected to be active, are two and a half inches shorter and twenty-five pounds lighter than the policemen. Athletes average

five feet eight and one third inches in height, and only about one hundred and forty-three pounds in weight; from which it is inferred that the majority of the population carry from ten to twenty pounds weight which they would not carry if they were in the highest physical condition. The Fellows of the Royal Society—a class of prominent intellectual gifts—are among the tallest of the race, averaging five feet nine inches and three-quarters. The criminal class are forty-five pounds lighter than the police and four inches and a half shorter; and they are eighteen pounds lighter and two inches shorter than the average of the population. Lunatics are about as short as the criminals, but heavier. In men of the same occupation belonging to different races, the influence of race appears to be predominant over that of occupation.—Popular Science Monthly.

—THE MODERN VIA AD ASTRA—(A Medical Fable).—Once upon a time a poor but humane physician was riding along a road which led by a dark forest, when he saw by the wayside a sick and miserable dog which had laid down to die. Moved with pity he got down from his carriage, picked up the poor animal tenderly, and gave it some food and drink. Suddenly the dog vanished, and he saw standing before him a beautiful fairy.

"You have saved me from a miserable doom by your compasion," she said. "Command now anything you wish and it shall be yours."

The astonished physician replied, "I am a poor man, I should like to be rich."

The fairy waved her wand, and extended to him a piece of paper and a bottle filled with a dark colored liquid. "Here," she said, "is a prescription for an infallible Compound Hair-Restorer. It will never fail, and it has been indorsed by the leading clergymen on both continents. The world is yours! Do you wish more?"

"I am a quiet man," replied the doctor, "and little known. I should like to be famous."

"You shall be more; you shall be immortal." Waving her wand again, she presented to him a small, dark, and curiously shaped instrument. "See," she exclaimed, "it is new and an 'Unquestionably Perfect Pessary.' It radically restores every malposition. Your name is blown into the side. Generations of suffering women and successful doctors will read, and bless you. I have tried it myself," she added, blushing a little, and vanished.—Boston Medical and Surgical Journal.

—THE WORD "MICROBE."—A question has arisen to the origin of the word "microbe," so much used during the last few years in connection with the discoveries of M. Pasteur, and which has ended by finding a place in the vocabulary of every-day life. In a paper read by M. Charles Sédillot, of Strasburg, in February, 1878, on the application of M. Pasteur's discoveries to surgery the word was used for the first time. He suggested microbe (from *mikros* and *bios*). In replying to M. Sédillot, M. Pasteur used the new word twice: and the day afterward it had been adopted by scientific men, then taken up by the general public. M. de Parville writing on the subject in the *Journal des Debats*, says he was present at the birth of the word, and that it came into existence "in the hall of the Academy of Sciences, one Monday in February, at half past 4 in the afternoon, just as it was getting dark."—San. News.

—X. D. Jons writes in "Items of Interest:" J.M. Lee, eight years old, stout, robust, well grown, has only four teeth, like tusks, two in the upper and two in the lower jaw. He has no sweatglands and was never known to perspire in his life. From the miniature size of his jaw and very small amount of alveoles I think he will never have any more teeth. He has but little hair which is like white wool. He has to keep himself sponged all the time (?) in hot weather. He has a bright intellect and takes pleasure in school.

DEATHS IN ST. LOUIS FOR THE WEEK ENDING SEPTEMBER 20, 1884.

Small-pox	
Measles	
Scarlatina	4
Diphtheria	8
Membranous croup	1
Whooping cough	
Typhoid fever	4
Cerebro-spinal fever	
Remittent, Intermittent, Typho-malarial, congestive and simple continued fevers	12
Puerperal fever	1
Diarrhœl Diseases.	
Under 5 years	13
Other ages	7
Erysipelas	1
Pyæmia and Septicæmia.	
Syphilis	
Inanition, want of breast milk, etc	2
Alcoholism	
Other zymotic diseases	1
Rheumatism and gout	
Cancer and malignant tumor	5
Phthisis and tuberculosis Pulmon	9
Marasmus—Tabes mesenterica and scrofula	11
Hydrocephalus, tubercular meningitis, etc	
Other constitutional diseases	1
Bronchitis	4
Pneumonia	4
Other diseases respiratory organs	3
Diseases of the circulatory system	4
Meningitis and encephalitis	2
Convulsions and trismus	8
Heat stroke	
Apoplexy	2
Other diseases of the brain and nervous system	6
Cirrhosis of liver and hepatitis	2
Enteritis, gastro-enteritis, peritonitis and gastritis	
Bright's disease and nephritis	
Other diseases urinary organs	2
Diseases generative organs	1
Diseases of the locomotory organs	
Diseases of the integument	1
Accidents of pregnancy and childbirth	1
Congenital debility, malformation, etc	7
Senility	3
Surgical operations	
Deaths by suicide	1
Deaths by homicide	4
Deaths by accident	
Execution by warrant of law	
Unknown	
Total Deaths from all Causes	137
Total zymotic Diseases	54
Total Consitutional Diseases	25
Total Local Diseases	41
Total Developmental Diseases	11
Deaths by Violence	6
Unknown	

GIB. W. CARSON, M. D.,
Clerk of Health Commissioner and Board of Health.

THE WEEKLY MEDICAL REVIEW.

VOL. X. No. 14. CHICAGO AND ST. LOUIS, OCTOBER 4, 1884. TERMS: $3 A YEAR.

MEDICAL EDUCATION IN GREAT BRITAIN.—The issue of September 13, 1884, of the British Medical Journal contains in full the "Regulations of the General Medical Council and the Licensing Bodies."

Before a person can enter upon the study of medicine he must register as a medical student, and such registration can take place only after a preliminary examination in the subjects of general education has been had before an examining body designated by the Medical Council. In lieu of such examination testimonials of proficiency granted by a number of educational bodies, of which the Council prepares a list, are accepted. The age of twenty-one is fixed as the earliest at which a candidate shall obtain a license to practice, and no license shall be obtained at an earlier period than after the expiration of forty-five months from the date of registration as a medical student. The course of professional study shall occupy at least four years, of which at least three winter and two summer sessions shall be passed at any school recognized by the licensing bodies.

How very much in earnest Englishmen are in regard to professional training is apparent from the following editorial expressions from the Journal:

"And when we turn from generalities to particular examples, what do we find in medical training? First, that far more is expected from a medical training than formerly, and far more attention is paid to it—that the value of education, in fact, is ranked much higher; and, secondly, that the watchword of the basis of a liberal education is being gradually though slowly adopted. But to carry this out is naturally a work of difficulty. There is the pressing practical objection that it needs more time and costs more money, and, further, the spirit of specialism is hostile, and never weary of pointing out that any widespread preliminary training is a waste of time in the postponement of the study of some one point of skill or learning which is thought sufficient to be the mainspring of life. To the practical objection there is the practical answer, that experience after all shows that a longer and more costly training is worth while, for it raises a man's status in the eyes of the lay world, and enables him to ask for, and rightfully obtain, not only more social privileges, but also a higher fee. The specialist may also be reminded that there is hardly any pinnacle of his skill that has not been reached by a man of wide accomplishments.

Examinations are now-a-days the instruments which shape training in medicine, as elsewhere. When they are compulsory, as in medicine,it would need the genius of originality to escape from their influence. By the preliminary examination, the medical student is led through a very wide portal into the professional curriculum, and no more at first is asked than a modicum of fourth-form knowledge. Then comes the study of the cognate physical sciences—physics, chemistry, botany, zoology, and the more specialized range of anatomy and physiology; and, finally, upon these gradually supervene the studies of the craft, medical and surgical. In such a course, there are opportunities for the more thorough introduction of the chief characteristics of a liberal education. The standard of the first step might well be raised and extended over a wider range of knowledge both of language and mathematics,which would react backwards and induce a more liberal course at school. And, when once the student is launched on the high seas of the preliminary sciences, the most important moment for education

comes; for, if one thing be more essential to the medical man than another, it is that he should have the full command of the power of learning, not from books, but from observation; that his senses should make him instantly aware of all perceptible data; and that the induction from what his senses teach him should be certain and complete. To help to the attainment of such a power, there is nothing better adapted than the practical study of physics, and mechanics, and chemistry, which, when applied to the human body, constitute, in old phrase, the institutes of medicine. In physics, as rightly comprehended, are included the great generalizations which underlie all material phenomena, and a complete mastery over which must needs be accompanied with a thorough exercise of the intellect. Any grasp over such matters as the foundations of the atomic theory, or of the theory of the correlation of forces, implies an intellectual gymnastic exercise which the scholar has no right to think contemptible. But after the theoretical comes the practical; on this the greatest stress falls, and here the education of the faculty of learning is most imperative. Of all subjects, the most universal and important are anatomy and physiology; and they offer to the skilled instructor the most admirable opportunity of teaching his pupil how to learn by observation. That personal observation shall be in the foreground and the formulæ of the text-book in the background, is the sign of a good school, a good teacher, and a good training.

In physiology, unfortunately, there is always some tendency to what has been called book-mindedness; for the apparatus and laboratory, which are necessary to make physiology a thoroughly practical subject, are costly and large. It is several years since Huxley, after long experience as a medical examiner, pointed out how impossible it was to get that living intense grasp, even on the first fundamentals of physiology, without practical familiarity with physiological laboratories, and how, for the London schools of medicine, it was almost impracticable to set up adequate laboratories and adequate teachers—one at least in each school. His recommendation was, an union of schools for such purposes into two or three centres, such as would give an adequate field for a physiologist in which to devote his life to practical physiological teaching.

In any professional education, the breadth of the basis is to a great extent proportionate to the time of a man's life at which the profession is taken up. Medicine has made some progress in that way, and has still some to make; it is gaining much, and still has much to gain from the general undercurrent of liberal education, though that has hardly yet reached the condition pictured, more than two centuries ago, in Milton's great tract on Education, in which it is a mere episode, in the earlier part of the scholarly training of all men, that, "in natural philosophy, they should proceed leisurely from the history of meteors, minerals, plants, and living creatures, as far as anatomy."

The Treatment of Pretubercular and of Advanced Pulmonary Consumption by the Mullein-Plant, *Verbascum Thapsus.*—Dr. F. J. B. Quinlan, (Dublin) read a paper on this subject at the International Medical Congress, (Brit. Med. Jour.). The Library of the Royal Irish Academy in Dublin, he said, contained a large number of manuscripts in the Celtic language treating upon medical subjects. Constant mention was made of the "cuineal mhuire" as a remedy in pulmonary diseases, and this plant had a most extraordinary reputation in the Celtic portions of the United Kingdom, and especially in Ireland, as a palliative and even curative remedy in cases of pulmonary consumption. In Ireland, although unrecognized by the medical profession, it had been for centuries given upon an immense scale in obedience to a steady demand on the part of phthisical sufferers; and during the last two years, Dr. Quinlan undertook a scientific investigation as to its alleged powers, the highly satisfactory result of which he was anxious to submit to the Congress. The mode of using it was to place 28 grammes of the dry leaves, or, much better, 100 grammes of the

fresh, in half a litre of new milk, to boil and allow to stand for ten minutes, then to filter and add a little sugar. This mixture was to be drunk morning and evening. A large number of cases of pulmonary consumption had been treated in St. Vincent's Hospital, Dublin, exclusively upon mullein. These cases were all carefully tabulated, and the patients weighed once a week, great care being taken to insure conformity of conditions in this respect. The results arrived at were as follows: 1. In the early and pretubercular cases of the disease, mullein was weight-increasing and curative to a much greater extent than koumiss or cod-liver oil. 2. In advanced cases it did not cure, but gave great relief to phthisical cough, and prevented or checked phthisical diarrhœa. 3. It had no effect upon the colliquative perspirations of phthisis. 4. In phthisical cough and in spasmodic cough, generally great relief could be obtained by smoking mullein-leaves in the same manner as tobacco, either in an ordinary pipe, or by means of cigarettes. These had been prepared in a very elegant form by Wheeler and Whitaker, of Belfast. On the dried mullein leaf-powder they sprinkled a very weak solution of potassium-nitrate, and flavored with oil of cascarilla. These cigarettes were rolled in paper in the ordinary way, and were very pleasant to smoke. Mullein had been tried in watery infusion, but this was disagreeable. The same remark applied to the extract or succus. It might be said that the weight-increasing effects were due to the milk; but experience showed that this was not so. Mullein was greatly liked by the phthisical sufferers. Dr. Quinlan concluded this paper by detailing two very remarkable cases of increase of weight in pretubercular phthisis, accompanied by disappearance of phthisical symptoms.

Myxœdema and its Pathology.—Dr. W. B. Hadden (London), in a paper on this subject, read at the International Medical Congress and reported by the British Medical Journal, said that myxœdema was a disease characterized by a general swollen condition of the body. The appearance of the patients suggested ordinary dropsy, but the parts did not pit on pressure. The face was swollen and puffy, the lips and alæ nasi thickened, the eyelids œdematous-looking, and on each cheek there was a well defined flush. The general expression was placid and inert—in a word, cretinoid. The skin everywhere was dry and harsh; perspiration and the secretion of the sebaceous glands were almost absent. The hands were broad, clumsy, and spade-like. The hair was soft and scanty, and tended to fall out. The nails and teeth shared in the general malnutrition. The thyroid gland wasted, although it was difficult often to determine this, in consequence of the swelling of the tissues of the neck. Soft masses were usually to be felt in the supraclavicular regions. The temperature was almost constantly subnormal. The speech was slow, thick, monotonous, nasal. The tongue seemed to be too large for the mouth. There was general muscular feebleness. The gait was slow and tottering, and all movements were retarded. There was marked mental lethargy. An indisposition to all bodily and mental activity was one of the most striking features of the disease. The urea excreted by the urine was much diminished, but, with this exception, there was no constant change. In the latest stages, albuminuria and true dropsy might supervene. Somnolence, insanity, impairment of memory, disorders of the special senses, and certain subjective sensations, were frequently experienced. The tongue, uvula, soft palate, and larynx were generally swollen, and difficulty in deglutition was often observable. The appetite was bad, and defecation usually difficult, in consequence, probably, of swelling of the mucous membrane of the rectum. The disease usually attacked adult women, but it occasionally commenced before the age of twenty, possibly sometimes in childhood. It occurred among rich and poor. Climate and race were probably without influence. Syphilis and excess of alcohol had no share in its causation, but permanent mental disturbance and ex-

haustion from excessive childbearing were occasional antecedents. As regarded family history, phthisis was remarkably frequent, acute; the constant factor was a diminution in size of the thyroid gland; rheumatism and insanity occasional; and, in at least one case, myxœdema had been observed in the collateral relatives. As to the morbid anatomy, according to Dr. Ord, there was solid œdema of the connective tissue throughout the body, and a great increase in the amount of mucin; hence the name myxœdema. The author believed that the disease was probably dependent on change in the sympathetic nervous system, and he thought it not unlikely that the thyroid was in some relation with the peripheral sympathetic nerve-fibres. This view had recently been borne out by post mortem evidence. Improvement had occasionally been effected by drugs, especially jaborandi.

Professor Brandes (Copenhagen), in connection with another paper on myxœdema and its pathology, exhibited a patient suffering from this disease for eleven years, and now 40 years old. Symptoms, he said, began with loss of power in the right hand, followed by melancholia and sluggishness of intellect. When in the municipal hospital, œdema had been noticed, and, as it persisted, myxœdema had been suspected. Very little albumen was observed at any time.

Sir William Gull (London) said in the discussion that followed, that he had published his paper on Cretinism in adults eleven years ago. This disease was cretinism in the adult. Sporadic cretinism existed in England. This disease was sporadic cretinism in the adult. Cretinism might come on at any period of life, and in any degree; and it was often not recognized by the physicians. Dr. Ord, looking on it as a special disease, searched for a special pathology, and termed it myxœdema. The myxœdema in such cases was accidental, and not the essence of the disease.

The Early Performance of Ovariotomy.—As already referred to in a letter to the Review, published September 6th, Mr. Knowsley Thornton read a paper on this subject at Copenhagen. Thornton is in perfect accord with Tait, as quoted in last week's issue of the Review, in condemning the tapping of ovarian cysts.

He first considered whether it was ever right to interfere with an ovarian tumor by tapping or by aspiration. Spencer Wells, Keith, and Thomas were in favour of tapping; and many other leading ovariotomists encouraged it. He gave quotations from Gross, Emmet, and Lawson Tait against the practice; and referred to the doubtful advantages claimed for this proceeding compared with its dangers, and its immediate and remote mortality. He said that exploratory incision was far safer and better in doubtful cases. Tapping should be condemned, except in some very rare cases. He would always remove an ovarian tumor as soon as it was large enough to be abdominal and slightly stretch the parietes. There were objections to operating earlier, except in special cases. The danger lay in delay. Pathological changes in the cysts might lead to the escape of their contents, and to the formation of adhesions; or the pedicle might become twisted. He adduced illustrations of the dangers of delay, drawn from over 400 ovariotomies he had performed, including forty cases in which ovarian fluid was free in the peritoneum, and thirty-four cases of twisted pedicle. He then summed up by considering the following questions. 1. Is tapping ovarian or parovarian cysts, or cysts of the broad ligament, ever justifiable; and if so, what conditions justify it? 2. Can any fairly general and defined rule be laid down as to the proper time at which to perform ovariotomy; and if so, what conditions justify an earlier or later operation? He concluded by appealing to the profession to still further improve the brilliant results of ovariotomy, by condemning tapping and supporting early ovariotomy.

Memorial to the Late S. D. Gross.—We learn indirectly that the Alumni Association of the Jefferson Medical College has inaugurated a movement to secure the endowment

of a Memorial Professorship in memory of the late S. D. Gross. Contributions may be sent to Dr. R. J. Dunglison, Treasurer, Lock Box 1274 Philadelphia P. O., and they will be acknowledgrd in the columns of the Medical News.

We fully appreciate and coincide with the suggestion made by the Medical Record on this point, namely that it would be much more to the honor of the departed representative of American Surgery to establish either a memorial laboratory or a lectureship. It certainly needs no argument to make this plain to any impartial reader and we are sure that the committee who have the matter in hand will reconsider the question.

Cranial Bones Removed from the Rectum.—Dr. O. W. Doe reports the case of a widow—colored woman—52 years, who ten years previous to his seeing her had a miscarriage; six months previons to the observation she had passed something through the rectum about the size of an orange. Since that time, diarrhœa and involuntary discharge had been frequent. When in the hospital after a large involuntary discharge on sitting up there were noticed hard masses in the left inguinal region which moved under the fingers, and also a large tumor above the pubes,which proved to an over-distended bladder. The patient then stated that she had passed urine only at intervals of three days during the past three months, feeling no inclination to pass it oftener. In removing the bones four of the largest ones were found in close juxtaposition about an inch inside of the anus; they were quite freely movable, and, as the sphincters were readily dilated, they were removed with but little difficulty. Three fingers could be easily introduced into the rectum, and but little, if any, laceration of the sphincter resulted. After removal of the bones near the anus another collection was found closely imbedded together, directly underneath the promontory of the sacrum. There was much more difficulty in removing them, especially the first one, and in their removal a considerable amount of a thick cheesy deposit was noticed. The fingers could not recognize any distinct rectum, but high up seemed to enter a large sac containing the bones, the walls of which seemed to be defined by a thick cretaceous deposit.

The bones were removed fifteen days ago, and since then the patient has had no unfavorable symptom. The temperature was 100° F., the day following the operation, and since then normal. She is now sitting up and has on an average two dejections daily, lately well formed. The sphincter shows no signs of any laceration having been produced; but the rectum is still very capacious and not easily defined, the finger apparently entering a large cavity with soft, cheesy-like walls.

Tuberculosis as a Cause of Death.—Tuberculosis has always been recognized as one of the most constant factors in swelling the death roll of humanity. It would seem, however, that its influence has not been overestimated. It would seem, in fact, that our future statistics would rather show an increase in the number of those who die from tuberculosis rather than a diminution. It has already been shown that the proportion of deaths from tuberculosis increases in proportion as age increases, and it would further seem that in proportion as our investigation becomes more searching that the proportion will be still further increased. We are led to make the above reflections by two articles in the Boston Medical and Surgical Journal:

One a clinical lecture by Professor Pepper, in which a case in the hospital offered such peculiarities that the Professor thus expresses himself:

This case has given a great deal of anxiety, largely on account of the difficulty in diagnosis, as you see the morbid elements which are present are numerous. You also see why it was that I referred to the possibility of the first attack being one of rheumatism. Her family presents a strong tendency to rheumatism, and in May, five months after the first attack, she had a severe attack of ordinary acute articular rheumatism, which has left behind it mitral regurgitation, as shown by a

strong, low-pitched, rough mitral, systolic murmur. In addition, we have coming on without any œdema, internal dropsies, right pleural effusion and ascites, and this long-continued febrile action, and more recently these cerebral symptoms.

In trying to arrive at a correct understanding of the nature of this case the following thoughts have occurred to me: Is this a case of chronic malaria, complicated with subacute rheumatism and great anæmia leading to these internal effusions? Is it a case of protracted rheumatic fever with ulcerative endocarditis, with the endocarditis progressing, keeping up the irregular fever with irritation of the serous membranes causing effusion, as will sometimes occur in these long-continued cases of septic rheumatic trouble? Not rarely in such cases will you find nervous symptoms appearing in their course. Is it a case of rheumatic trouble with serous tuberculosis, causing tubercular pleurisy and peritonitis and recently tubercular meningitis? It is very difficult to answer these questions.

The autopsy revealed an unquestionable case of peritoneal tuberculosis. The other article is a translation from Le Progrés Medical. It describes a case of a woman of fifty-one who was at first treated for typhoid fever and only a short time before death was the diagnosis changed.

At the autopsy tuberculosis of the lungs was observed, with cheesy softening, and cavities at the left apex. No tubercles were discovered in heart, spleen, kidneys, or liver. The latter organ was fatty. The mesentery showed miliary granulations, with swelling of the lymphatic glands. The intestine had whitish spots on its serous surface, elevating the peritoneum. These were scattered all over the small intestine and the ascending colon, especially abundant at the cæcum, where they became confluent. On opening the intestine it was found that each of these external spots corresponded to an ulceration of the mucous membrane internally, the ulcers being irregular, scalloped, rather deep, with sharp edges and sanious bases. Here and there a Peyer's patch was found ulcerated.

The uterus and its adnexa showed nothing externally, except an ulceration at the left of the cervix, extending through the mucous membrane. The vagina was perfectly healthy. The uterine cavity had preserved its physiological dimensions, and was quite filled with a whitish caseous substance. The mucous membrane was much altered, channeled with winding cavities of small dimensions, which contained the same substance, and discharged it into the uterus. The Fallopian tubes were much increased in volume, having at their free extremity a diameter equal to that of a quill. They were very tortuous, their calibre filled with the same cheesy substance as the uterus, and their mucous membrane presenting the same appearance. The broad ligaments had old adhesions, but no tuberculous lesions. The ovaries were both in a state of caseous degeneration. The peritoneum over them presented whitish salient spots like those of the intestine.

The "Magnetic Healers."—The magnetic healers, of Chicago, have justly received an overhauling by one of the reporters of the Chicago Tribune. It is the public press that has the special advantage of exposing these infamous deceivers. If the medical fraternity attempt to put them in their true light the supposition is that the opposition is merely one of jealousy and a cry of persecution is raised. The reporter thus gives the answer to the questions, as to what the magnetic treatment consists of: "O, it is simple enough. You undress and get into bed and the operator rubs you. If you like I will send for one of the young lady assistants; she lives in the neighborhood." * * When a woman comes to be treated, the magnetic healer rubs her in the usual way and sometimes the patient imagines that her health has been actually benefited. Of course, the treatment for men is different. I know of two ladies who sent their husbands to be magnetized.

One of them came home very indignant, but the other went again.

It may be technically difficult to prosecute such shameless deceptions, but it should be done.

Cystotomy for Paralysis.—In the New York Medical Journal, Sept. 13, Dr. Polk gives, in a clinic, an interesting account of an accident affecting principally the lower part of the spinal cord with the parts dependent on it for nervous energy. The patient, a women of 28 years, fell from the third story and sustained an injury which resulted in paraplegia, affecting the lower extremities, the rectum, bladder and internal genital organs. The paralysis of the lower extremities disappeared, the conditions of the rectum improved, but the paralysis of the bladder continued, as well as the cessation of the menstrual flow. Discussing the question of treatment relative to the bladder, he says:

If this patient were under constant supervision, so that the urine could be drawn every two hours and the bladder washed out twice a day and fully distended, a great deal could be accomplished; but even this would not meet the difficulty so well as another procedure, viz., opening the base of the bladder. Make such an opening and you relieve the bladder from its embarrassment. The urine flows off as fast as it is received from the ureters; the bladder relieved of pressure and the decomposed urine, will grow no worse, but improve. And more than all—the pressure being taken from the ureters and pelves of the kidneys, the urine flowing off through the ureters as fast as it is formed, and decomposition and its results to the pelves being avoided—not only are the pressing dangers relieved, but we put the patient in the best position to escape those that lie directly in her way.

The cure that has taken place in the lower extremeties—for the patient has entire restoration of their motor and sensory functions—and the great improvement she recognizes as having occurred in the rectum, justify us in believing that in time improvement may occur in the action of the bladder; but, if she were to be left as heretofore, there is reason to believe that long before such improvement came, the state of the kidneys would make it serve a short career of improvement. The same general treatment employed since her admission will be continued—tonics, galvanism and faradization from the region of the bladder to the lower part of the cord, coupled with the occasional use of the actual cautery over the lower dorsal and upper lumbar region.

While the patient is being anæsthetized we will occupy you with some suggestions touching the second morbid condition—the suppressed menstrual function. Until the injury this function had never suffered arrest; from that time till now it has been suspended. What is the cause? Unquestionably the injury to the spine. And the injury must have been low down, so as to sever the connection between the lumbar enlargement and the internal genitals, for we know that even after division of the cord in the dorsal region, above the lumbar enlargement, the process of ovulation, of development of the pregnant uterus and the lacteal glands, and of parturition, may go on. If we may be allowed a conjecture, we will say that the lesion which has affected the centres presiding over the action of the bladder has likewise interfered with those presiding over the function of menstruation, and perhaps ovulation. It would be a most interesting study, that of the condition of this woman's ovaries. Is the development of the ova interfered with? Could we determine it in conjunction with a careful study of the cord, much light might be thrown upon the vexed question as to the independence of ovulation and menstruation. The two processes are so intimately associated, however, that it is probable any lesion of the cord affecting one, would most likely affect both. But, whether ovulation is involved or not, menstruation assuredly is, for never since the injury has she given symptom or sign of such an occurrence. And just here let me again call your attention to the fact that we have no other cause of this cessation present. Supposing ovulation to continue, the question of pregnancy in this

case must still be answered in the negative; for in the absence of every evidence of uterine activity, even at the periods at which menstruation would fall due, we must conclude that here, at all events, the trophic changes in the uterus are so seriously impaired as to make the formation of a decidual membrane impossible. Without such a membrane the implantation and development of an ovum are highly improbable.

But the patient is now ready for the operation,so with your permission,we will cease commenting upon the interesting but obscure topics, and turn our attention to a matter of more immediate and practical importance to her and us. The point at which to make the opening is in the median line, half an inch above the vesical end of the urethra. We must bear in mind the relation of the ureters to this line else injury may be done their openings. The injury itself would hardly cause much inconvenience, but subsequent contraction at the seat of injury might end in constriction or even closure of the tube—a matter of great moment. These openings are situated from half to three-quarters of an inch from the anterior median line of the vagiua, one on either side, and are about an inch and a half from the vesical end of the urethra. Our opening will, then be so placed as to avoid injuring not only the ureters but the vesical end of the urethra as well —a matter of less importance than lesion of the kidney outlets, but one bearing strongly upon the action of the urethra as an outlet—a question that comes up should the paralysis of the bladder be cured. The position of our patient is that upon the back, with the thigh s well flexed on the abdomen.

This blunt wire currette, having a large loop, will admirably serve our purpose as a guide. Introducing it into the bladder, I place the loop at the point selected for incision and press the vesical and vaginal walls down and out on a line with the ostium vagina. You can easily feel the loop as I thrust this knife through the walls directly into it. Taking next this probe-pointed bistoury,I enlarge the opening toward the uterus so as easily to admit my index finger. Owing to the condition of the walls, the bleeding is somewhat more than is usual with these cases, but even here it requires no special effort at arrest.

Carrying my finger well over the vesical wall, I appreciate the condition of the diseased mucous membrane. As intimated in the earlir remark, it is thick, and thrown into folds; and off to the patient's right is a distinct pocket in the wall, free, however, of anything like stone formation.

As a matter of some importance to determine the condition of the pelves of the kidneys, and as the urine in the bladder is so infected with the products of vesical inflammation as to furnish us with no satisfactory evidence upon this point, I will collect some directly from the ureters, by catheterizing them, and at our next meeting will give you the result of the inquiry.

We next wash out the interior of the bladder, with a warm, saturated solution of borax, introduce this glass button, having a hole through it, into the opening, and return the patient to the ward. Should we leave the opening without the button, it would speedily close. To insure a permanent opening and give free drainage to the bladder, we must keep this perforated button in place for several weeks—perhaps as long as the paralysis lasts.

Our confident expectation is that this parient will improve greatly. Certainly she will be relieved from the drain and tension incident to a chronic cystitis, and possibly pyelitis, to say nothing of the relief given the kidneys by the free escape of the fresh urine.

We will keep the vagina clean, and for the present distend the bladder once a day with warm solution of bichloride of mercury, 1 to 2,000, and chloride of sodium.

Before closing, permit me, gentlemen, to say a few words upon catheterization of the ureter. You have seen me do it upon this patient, after making the opening into the bladder, using a No. 5 instrument. Can it be done without such an opening? Yes. Simon did it by forcing the finger through the urethra, passing the catheter alongside and guiding its point with the finger-tip into the

canal. The great objection to this procedure is that it usually results in permanent incontinence of urine—a very serious mishap.

Pawlick maintains that it can be done by following with the point of the catheter—the instrument being introduced through the urethra—certain lines on the anterior vaginal wall which indicate the course of the ureters as they enter the bladder. He states that these lines can be made evident in all cases by carrying out the following directions:

The bladder must be empty, the abdomen free, the woman to be put in the knee-chest posture, and the perineum raised so as to distend the vagina with air. The lines are then seen starting from about the points at which we know the ureteric orifices to be situated, and running upward and outward, the course of each correspoding to that of the ureter.

There is no doubt that in cases of relaxed and distended vagina these lines can be brought out, but in such as present contrary conditions you will as often fail to find them.

But, granting that they may be recognized in all cases, the grea defect in the method is the difficulty attending the determination of the question as to the actual entrance into the ureter. The depth to which you may carry the instrument is but a poor guide. Many bladders are so elastic as to be carried before it, even so far as the synchondroses. Given a case in which catheterization of the ureter is demanded as a means of diagnosis—and every renal tumor requiring extirpation is such a case—Pawlick's method is too uncertain. Should the patient be a woman, open the base of the bladder, pass your cather through the urethra, and, by means of your finger passed through the artificial opening, you can always insert the instrument into the canals. You collect urine first from one kidney, then from the other, and are in the only sure position to determine the state of the two organs. Should both be diseased, you spare your patient a fatal operation. Should one be sound, by operating you prolong life.

CONTRIBUTIONS.

ONE LARGE OVARIAN TUMOR FORMED BY THE TWO OVARIES.

BY HENRY SCHWARZ, M. D.
Consulting Physician to the St. Louis Female Hospital.

Miss S., aged 17, had always enjoyed good health up to October 1883. Her menstruation first set in with 14 years, came regularly every four weeks, lasted from three to four days and had never been accompanied by abnormal symptoms.

She menstruated the last time about October 15, 1883. In November she noticed a gradual symmetrical enlargement of the abdomen, which continued ever since. At the same time her appetite and digestion became greatly impaired and she began loosing flesh rapidly. She has been under various treatment; diuretics and purgatives have been freely administered and helped to undermine the patient's strength.

On the 25th of May, 1884, when I saw the patient for the first time, I found her to be a slender girl of medium size. At that time she was reduced to skin and bone, highly anæmic, pulse small—128 beats a minute; heart and lungs were free from marked changes. There was slight œdema of the lower extremities; the urine was very scanty, of acid reaction and contained albumen. The patient's only complaints were constipation, loss of appetite, great weakness and mechanical impediment to locomotion caused by the enormous enlargement of the abdomen.

The size of the latter exceeded that at the end of pregnancy. The largest circumference was midway between the ensiform process and the umbilicus; it measured 43 inches. The abdominal walls were greatly distended, slightly œdematous, the skin shining and covered with striæ. The veins were much enlarged all over the abdomen, but more particularly in the lower half.

Percussion revealed tympanitic sound in the two hypochondriac regions only, over the rest of the abdomen the sound was absolutely flat. A large tumor of oval form and apparently smooth surface, could easily be felt, it reached from the brim of the pelvis to the ensiform process, was elastic, distinctly fluctuating, and but slightly movable. Vaginal and rectal examination showed the womb to be of normal size, the body directed backwards, the portio vaginalis conical in shape and directed forward and downward. The whole organ was slightly movable; the ovar-

ies could not be found. An intimate connection between the uterus and the tumor could not be proved. The hymen was uninjured.

The tumor undoubtedly was ovarian and owing to the reduced condition of the girl immediate ovariotomy was urged and it was agreed to perform it on June 2. The patient was meanwhile given a mild preparation of iron and strengthening diet, and transferred to a convenient hospital.

The operation was prepared in accordance with the rules of antiseptic surgery. The rooms, bedding, tables, etc., were thoroughly fumigated with sulphur. Two steam atomizers were procured through the kindness of Dr. Dean, and worked fortwo hours preceding the operation,filling the room with a dense carbolic acid spray. The sponges were all new and had been kept in a five percent solution of carbolic acid for forty-eight hours. The dressing material, the silk, the drainage-tube, etc., had all been boiled for two hours in a five per cent solution of carbolic acid, and were then kept in a weaker solution. All instruments were similarly prepared and kept. All persons present at the operation had avoided contact with infectious diseases, etc. for at least twenty-four hours, had all taken a bath immediately preceding the operation and had completely changed their clothes.

The patient herself had been similarly prepared. At 3 P. M., with the kind assistance of Drs. O. Greiner, Harnisch, Luedeking, Rohlfing and Schlossstein, the operation was commenced.

The vagina had been thoroughly cleansed and was blocked with a cotton ball soaked in carbolized glycerine. An incision was made from the umbilicus to an inch above the symphysis pubis, dividing the abdominal wall down to the peritoneum. After the few bleeding vessels had been tied, I intended to split the peritoneum in the ordinary way, but the tumor being closely adherent to the anterior wall of the abdomen the cut at once penetrated into the cyst and a large quantity of its colloid contents escaped. This opening was now temporarily closed and the tumor isolaled from the peritoneum. The adhesions were mostly recent and could be separated with the hand. The opening which had been made into the tumor involuntarily, had struck a large cyst with an extremely thin anterior wall; its contents had partly already escaped and the rest was now evacuated with a Spencer-Wells trocar. The greater part of the tumor was, however, semi-solid, consisting of a great number of very small cysts with colloid contents. For this reason it was not possible to reduce the size of the tumor to any great extent and the abdominal incision had to be enlarged along the left side of the umbilicus. The tumor was also adherent to the bladder below and in front and to the intestines above and behind. After all the adhesions had been separated with more or less difficulty, there remained a distinct pedicle on each side of the tumor. They were of medium length, about half an inch in thickness and lead to the upper corners of the uterus, embracing that organ as with a bridle. The right pedicle was now tied with strong silk, divided with the knife and dropped; the tumor was then rolled in front of the abdominal walls and the left pedicle treated in the same way as its fellow.

The abdominal cavity now presented an aspect very different from that which we usually find after taking away a tumor. The intestines, which had been crowded up towards the diaphragm and the spinal column, were held in that position by numerous adhesions, and there remained a large cavity below filled with air. It looked as though the patient had been eviscerated. The liver and the large abdominal vessels were plainly in view, while at the bottom of the lesser pelvis the bladder and the uterus lay bare. The walls of this cavity were covered with the remnants of the several adhesions, from which blood was continuously oozing. The patient by this time was almost pulseless; therefore six hypodermic injections of ether were administered, while the operation was hurriedly finished. A few band-like adhesions were ligated; the bleeding surfaces were compressed with carbolized sponges until bleeding had almost entirely ceased. The cavity was then thoroughly cleansed with carbolized sponges and the abdominal wound closed with silk ligatures. The dressing was strictly that of Lister, but was applied rather tightly on account of the large cavity left by the failure of the intestines to come down.

The operation had lasted a little over an hour. The patient was now removed to bed and soon recovered consciousness. The first night she received nothing but chipped ice; next morning a little milk was offered, but immediatelythrown up; therefore nothing but ice and champagne was given and that was borne excellently. On the 3d day brandy and meat-juice was added and well borne; on the 4th day milk, on the 5th crackers and eggs were relished and on the 8th day the patient returned to more solid food. The catheter was applied only twice, for the patient urinated with ease twenty-four hours after the operation. The temperature rose above the normal only once, namely on the eve of the 2d

day, when it reached 101° F. On the 5th day the patient was placed on an air-cushion to prevent decubitus. On the 10th day the dressing was changed for the first time. Healing by first intention had taken place throughout; there was no secretion of the wound whatever; the sutures were removed and strips of adhesive plaster applied. Examination showed that the intestines had now fully descended, as had been anticipated, since the bowels had moved quite regularly after the 5th day. Recovery, in short, took place without any untoward symptoms. The patient got upon June 25, and was dismissed from the hospital on July 1. At that time she weighed 76 pounds. I saw her again on September 10; she was enjoying good health, had not menstruated since, was growing fat and weighed already 103 pounds.

This case presents several points of special interest. The tumor, as already mentioned, a multilocular cyst weighed with the greatest part of its colloid contents (all could not be saved) about 35 pounds. It was oval shaped, with a tolerably smooth surface. On each side was the remnant of a divided pedicle. On the right side the Fallopian tube was well preserved, running along the tumor for a distance of four inches; on the left side the fimbriated end of the tube could not be distinguished. The tumor otherwise showed no sign that it had originated from the two ovaries. Especially was there no septum to be found, which might have indicated that two ovarian tumors had become blended by adhesion.

The firm adhesions of the intestines to the diaphragm are most remarkable and rare. Professor von Nussbaum in his "Guide to Antiseptic Surgery" reports a similar case, in which after the removal of the ovarian tumor he was unable to bring down the intestines. He closed the abdominal wound, hoping that the intestines would come down by themselves in the course of time. "But," he says, "it came otherwise. The abdominal wound did not heal, but gaped and the air-filled cavity formed a huge reservoir for pus, in which at every evening-visit I threw the light of a wax-candle and observed how uterus, bladder, etc., became covered with buffy granulations. The patient had a hot skin, rapid pulse and a dry tongue, and became daily more atrophied, although she took large quantities of milk, coffee, eggs, soups and wine. The dryness of the tongue became daily more marked, although I laid wet compresses on the mouth and abdomen. The patient died with marasmus on the 41st day after the operation.

SELECTIONS.

ON BRANCHIAL CYSTS OF THE NECK.

BY N. SENN, M. D., MILWAUKEE, WIS.

Read in the Section on Surgery and Anatomy of the American Medical Association, May, 1884.

(Journal of the American Medical Association).

[CONCLUDED.]

Serous branchial cysts. This variety of branchial cysts is composed of thin cyst-walls and serous contents, and may develop from any one of the branchial clefts which fail to obliterate completely. This affection has been described under the name of *hydrocele colli* (Mannoir), congenital hygroma of the neck (Wernher), congenital hydrocele of the neck, and congenital cystic tumor of the neck (Thomas Smith). Mannoir, under the name of *hydrocele colli*, described certain serous cysts occurring between the angle of the jaw and mastoid process, and between the larynx and the anterior margin of the sterno-cleido mastoid, a region which corresponds to the second and third branchial clefts, which were supposed not to be congenital. We have seen, however, that branchial cysts are not necessarily developed during intra-uterine life or soon after birth. All that is necessary is that the matrix for the cysts be present at birth, from which, at some future time, the tumor is developed. These tumors appear as single or multilocular cysts with thin membranous walls; their internal surface is lined with pavement epithelium. Like a serous membrane, they contain a limpid, watery, or tenacious fluid, holding in suspension epithelial cells and cholesterine crystals. These cysts are formed anywhere in the neck, within the area of branchial clefts, between the lower jaw and clavicle. They are usually deep-seated and occasionally superficial. They are painless and give annoyance only from their size. Clinically, they may be recognized from their location, their globular cystic form, soft fluctuating feel and painless growth. The existence of tesselated epithelium upon the inner surface of these cysts has been demonstrated by Neuman and Baumgarten. When these cysts spring from the second or third branchial clefts they are usually deeply located. Hueter,[1] in extirpating a tumor of this

1. Grundriss der Chirurgie, 1880, vol. ii, p. 325.

kind in a child two years of age, ascertained that it extended between the two carotid arteries back to the walls of the pharynx. When they are deeply situated they are usually in contact, and connected with the sheath of the cervical vessels, receiving a distinte impulse from the underlying artery. When thus located they offer the same difficulties to extirpation as the atheromatous variety. The following cases may serve as illustrations of this type of branchial cysts:

Wernher's case.[1] The patient was a healthy female child, which was born with a tumor on the left side of the neck, filling the whole space between the lower jaw and the clavicle, and from the ear to the median line of the neck. The tumor was smooth, tense, elastic, fluctuating; toward the front point was a small abrasion. Respiration and deglutition were unimpaired. The tumor increased rapidly during the first ten days of the child's life. Wernher, to satisfy the mother, ordered a liniment containing two grains of pot. id. to an ounce of oil. After a few days a small opening formed through which a dark, brownish-red syrupy fluid escaped for some days. No suppuration. The tumor sensibly diminished. After a time other openings formed in other cysts composing the growth, and the whole tumor began to shrink from the jaw toward the clavicle. Six months subsequently the child died of small-pox, and a post-mortem examination demonstrated that the tumor had completely disappearad.

Thos. Smith's case.[2] Geo. A., æt. 8 months. Healthy child, and well nourished. At the time of his birth a swelling was noticed behind his right ear about the size of a hen's egg. This had gradually increased in size up to the time when he was first seen. It was then as large as a fist, and was situated in the posterior triangle, running up behind the ear and toward the angle of the jaw. The tumor was cystic, and evidently contained fluid. In parts it was tense and elastic, and elswhere it felt flaccid, semi-solid, and lumpy. Smith passed a seton formed of a single thread of fine silk through the most prominent part of the tumor. The immediate result was to diminish the size of the swelling considerably, and subsequently to cause inflammation, suppuration, and discharge from two of the cysts. Three weeks after the introduction of the seton the cysts had quite collapsed, and the tumor had lost about two-thirds of its size. Another seton was introduced, with the result of still further diminishing the size of the tumor until it was no larger than a marble.

The same author reports another case, which would show that these cysts may occasionally disappear by spontaneous absorption of their contents. The patient was a healthy babe, three weeks old. Immediately after birth a swelling was noticed in the neck, which rapidly increased in size. When first seen, a cystic tumor occupied almost the entire region of the left side of the neck, extending from under the lower jaw to the clavicle. The mother objected to any kind of treatment. Three months later the child was seen again, when the growth had greatly diminished in size. There was nothing to be felt but a loose, flabby cystic mass not much larger than a hen's egg. The skin over it was shrivelled, loose and baggy. Three months later the tumor was still smaller.

That these tumors may sometimes attain an enormous size, is evident from the following case reported by Frederic Treves.[1] It occurred in an infant, and took its origin in the region of the inferior maxillary bone, and occupied the whole side of the neck and the upper part of the thorax on the same side, from where it extended as far as the umbilicus. It contained one large and numerous smaller cysts, corresponded to the region of the second branchial tract. No histological report of the specimen.

A very interesting description of a double branchial cyst is given by Vonwiller.[2] The specimen is contained in the Dresden Anatomical collection. The fœtus, of about six months, besides slight abnormities of the extremities and cleft palate, presents in the region of the neck a tumor double the size of an infant's head, which is divided in the median line by a depression, which separates it into two symmetrical halves. The tumor reaches from the lower margin of the ear and the linea semicircularis of the occipital bone nearly to the apex of the scapula. Larynx and trachea free. Palpation reveals that the tumor consists of two large separate cysts. The skin over the cysts is thin and firmly adherent. The inner surface of the cysts is smooth, and resembles a serous membrane. No projections or remnants of septa can be

1. Die angebornen Kysten-Hygrome, Giessen, 1843.

2. Congenital Cystic Tumor, by Thos. Smith. St. Bartholomew's Hosp. Rep. vol. ii, p. 16.

1 Dissection of a Congenital Hydrocele of the Neck. Trans. Path. Soc. xxxii, p. 194. Virchow u. Hirsch's Jahresbericht, 1882, vol. i, p. 280.

2 Ueber einige angeborene Tumoren, Inaugural Diss. Bern, Zürich, 1881. Centralblatt für Gynæcologie, p. 235.

seen. The septum dividing the two cysts is attached to the middle of the occipital bone and the spinous processes of the cervical vertebræ. It is covered with a similar membrane as the cysts, and separates them completely. The cysts do not communicate with the cavity of the cranium or spinal canal, nor with the mouth or pharynx. The inner surface of the cysts is lined with epithelium,only a small amount of solid contents composed of conglomerations of fatty epithelial cells. The anatomical diagnosis reads: Double branchial cyst—*Hydrocele colli congenita duplex.* The cysts originated, probably, in the cleft between the second and third branchial arches.

I will add another case, which came under my own observation.

Case IV.—*Serous branchial cyst in the fourth branchial cleft.* The patient was a healthy strong male child, six years of age. There is no history of congenital malformation, especially branchial fistula,in the family. When the child was born a small tumor the size of a pea was discovered on a level and somewhat to the inner side of the sternal or origin of the sterno-cleido-mastoid muscle. The tumor was painless and movable, but rapidly increased in size. When the child was brought to me, it was as large as a walnut. The skin over the tumor was natural in appearance and movable. The tumor itself presented a smooth surface. Fluctuation was distinct, but the cyst appeared to be somewhat firmly attatched to the subjacent tissues. The cyst was readily enucleated, the adhesions not being very firm except over the most prominent point of the tumor, where inversion of the skin had undoubtedly occurred during the closure of the external opening of the fourth branchial tract. The adherent portion of the skin was excised with the tumor. The cyst is oval in shape, smooth, the outer layers quite vascular. The walls are thin, the contents serous, which render the whole tumor translucent. The wound was closed with sutures, and healed by primary union under antiseptic dressing.

4. *Hæmato-cysts of branchial clefts.* In some instance of serous branchial cysts the fluid is discolored by an admixture of blood from minute hæmorrhages into the sac, but when the contents are of such dark color as to resemble venous blood they are properly called hæmato-cysts, and from a pathological, diagnostic and clinical point of view constitute a distinct and well-marked variety of branchial cysts.

Albert[5] remarks that two kinds of these cysts have been observed: 1. Such as may be emptied by pressure and are in communication with blood-vessels. 2. Those which can not thus be emptied, and which simulate the appearance of an ordinary serous cyst so closely that their nature is only recognized by puncture. The latter class, when they occur in the neck, usually belong to the branchial cysts, because they are observed during early life and originate in places which correspond to the branchial clefts. This variety of cysts has been called *hæmatocele colli*, by Michaux,and hæmatoma by J. P. Frank. Aside from their origin from branchial clefts, and the admixture of blood with the contents of cysts, such cysts may develop from dilated veins, both extremities of the dilated portion undergoing contraction and finally complete obliteration, completely isolating the contents of the cyst from the general circulation. Again, a vein may dilate at one point, forming a pouch or sac, and by contraction and obliteration of the orifice, a cyst is formed. Such a case was observed by Lloyd, in the region of the saphenous vein, and was described by Paget.[1] A somewhat similar case was examined by Virchow.[2] In this instance the disease was complicated by cancer, and the cyst developed from the internal jugular vein, where no communication with the vein could be found. Hæmato-cysts resemble the serous cysts in every particular, with the exception of the presence of blood in their contents. Their diagnosis, however, is more difficult, should always be made by exclusion, due attention being given to the location of the cyst, time of development, and character of contents.

Branchial cysts of the neck, as compared with other tumors in this locality, are of rare occurrence. The statistics of branchial tumors cannot be relied upon in estimating the comparative frequency with which these tumors occur, as many branchial cysts have been classified and described under the generic and indefinite term "Cystic tumors of the neck," without regard to their etiology. Gurlt,[3] in 1855, compiled 44 cases of serous,and 5 cases of atheromatous cysts. Since that time quite a number of new cases have been described by Volkmann, Billroth, Esmarch, Roser, Langenbeck, Luecke, and Burow. The serous variety is more likely to de-

1 Lehrbuch der Chir. u. Operationslehre, vol. i, p. 443.

1 Lectures on Surgical Pathology, 1853, vol. ii, p. 55.

2 Die Krankhaften Geschwülste, vol. i.

3 Archiv fuer Klin. Chirurgie, vol. xiv.

velop early; they are often congenital, or appear during infancy or childhood, while the atheromatous cysts are most frequently met with in young adults. Of 53 cases mentioned by Schede[1]

9	occurred	between	the 1st	and	10th	year	of	life.
21	"	"	" 11th	"	20th	"		"
10	"	"	" 21st	"	30th	"		"
6	"	"	" 31st	"	40th	"		"
5	"	"	" 41st	"	50th	"		"
2	"	"	" 51st	"	60th	"		"

Like the dermoid cysts, the branchial tumors show a tendency to develop during the period of puberty, at a time when the epiblast enters upon a new phasis of development, and becomes the seat of renewed and active tissue proliferation. The remnants of the branchial cleft may remain dormant as a matrix for the future growth of the tumor for an indefinite period of time, and become the seat of tissue growth during puberty, or upon the advent of any determining cause or causes. There are undoubtedly many instances where remnants of fœtal tissue remain latent in the branchial tracts throughout a lifetime for want of an adequate exciting cause, which is necessary to call into morbid activity the slumbering forces inherent in the histological elements of the matrix..

Diagnosis.—To diagnose the presence of a branchial cyst, is often no easy task. The importance of the tissues and organs which are in close and intimate relation with these tumors, renders imperative upon the surgeon to make a correct diagnosis before an operation is undertaken for their removal. All witnesses should be examined carefully, and every diagnosis should be fortified by eliminating the existence of all other forms of tumors. The following conditions may simulate a branchial cyst: 1, Aneurism; 2, angioma; 3, dermoid cyst; 4, retention cysts; 5, affections of lymphatic vessels and glands; 6, struma cystica; 7, simple serous cyst.

1. *Aneurism.* As most of the branchial cysts are in immediate contact with the large cervical vessels and usually receive the impulse from the underlying artery, it is always important to exclude the possible presence of an aneurism. At the age when branchial cysts are most frequent, aneurisms, except of traumatic origin, are exceedingly rare. Pressure does not affect the volume of a branchial cyst, and the pulsations are felt only in one direction away from the artery. Auscultation furnishes another important negative symptom. An exploratory puncture, which should always be made in doubtful cases, will also furnish valuable information, as it will afford an opportunity to examine the contents of the cyst under the microscope, and such examination will not only help to substantiate the diagnosis, but, in many instances, will by itself be sufficient to arrive at positive conclusions. In hæmatocysts, the contents may resemble venous blood, but a microscopical examination will show in addition the presence of epithelium or the products of epithelial degeneration.

2. *Angioma.* Deep-seated angiomata of the neck are occasionally met with in children, and as the skin may present a perfectly natural appearance they might be mistaken for a branchial cyst. If the tumor disappears under pressure, it may be an angioma, but never a branchial cyst.

3. *Dermoid cyst.* As dermoid cysts may occur in the same localities, and at the same age, they are frequently mistaken for branchial cysts, and *vice versa.* A number of authors classify deep-seated atheromatous cysts with dermoid cysts. As both varieties of cysts require the same treatment, a positive diagnosis is not essential. A correct anatomical diagnosis can be made by examining the contents and the cyst walls. A branchial cyst contains only one constant histological element—epithelium, as obliteration of the branchial tracts takes place long before the appendages of the skin are developed. A dermoid cyst, on the other hand, as its name implies, contains the products of secretion of the skin and the organs which it contains, the hair follicles, the sweat, and sebaceous glands. Lanuginose hair and hair follicles are never present in a true branchial cyst while they are frequently found in the contents of dermoids. The walls of a branchial cyst are composed of a connective tissue capsule lined with epithelium, while on the other hand, the sac of a dermoid cyst is composed of true skin.

4. *Rentention cysts.* The only two forms of retention cysts which call for consideration in this connection are the true atheroma of the skin, the result of obstruction in the ducts of the sebaceous glands and retro-tracheal cyst, which originates in a similar manner in the retro-tracheal glands. Cysts arising from the second and third branchial clefts are always deeply located, and when first observed are distant from the skin, while an atheroma primarily develops in the skin, and usually grows in a peripheral direction. Branchial cysts are always congenital, atheromatous cysts acquired. Lanuginose hair is sometimes found in the contents of an atheroma, the products of retained hair-follicles;

[1] Die Cystengeschwülste des Halses. Berlin, 1855.

it is never seen in branchial cysts. Another important anatomical difference will be found in the outer portion of the capsule of the cyst and its relation to the surrounding tissues. In branchial cysts the capsule is quite vascular, and intimately connected with the adjacent structures, the reverse being true of the retention cysts.

Virchow[1] has called attention to a peculiar kind of retention cyst between the œsophagus and the trachea arising from an obstructiou in the duct of one of the retro-tracheal glands. These glands are situated between the trachea and the œsophagus,but their ducts traverse the entire thickness of the tracheal wall and terminate upon the free surface of the mucous membrane. These cysts are so located that they give rise to distressing symptoms referable to deglutition and respiration before they attain any considerable size, and before their existence is suspected or detection is possible, differing greatly in this respect from the clinical history of of a branchial cyst.

5. *Affections of lymphatic vessels and glands.* A deep-seated isolated caseous lymphatic gland might be easily mistaken for a branchial cyst, more particularly after the cyst had become the seat of inflammatory infiltration. Luecke[2] claims that he has observed the development of dermoid cysts within lymphatic glands. It is seldom that we meet any such extensive pathological changes in a single lymphatic gland to such a degree as to simulate a branchial cyst, without participation of one or more adjacent glands. Again, in cases of disease of the lymphatics the general condition of the patient usually indicates the existence of a serious affection,while a branchial cyst is a purely local condition, never affecting the general health of the patient, except when by compression it interferes with important functions of neighboring organs. Kœster is of the opinion that many of the multilocular cysts of the neck are the result of lymphangiectasis, but in such cases a microscopical examination would show the presence of endothelia,which would exclude the branchial origin of the tumor. Cancerous or sarcomatous affections of the lymphatic glands would reveal themselves bythe clinical symptoms characteristic of these tumors.

6. *Struma cystica.* Cystic degeneration of the thyroid gland proper can never be mistaken for a branchial cyst, as the connection of such cysts with the thyroid body can be traced without any difficulty; but recently it has been ascertained that not infrequently small accessory thyroid glands exist in the neck which may undergo cystic degeneration, and Madelung has made the assertion that the so-called hydrocele of the neck is only a struma cystica of a supernumerary thyroid gland. The possibility of a cystic degeneration of such an accessory thyroid body should always be borne in mind in all examinations for branchial cysts.

7. *Simple serous cysts.* Virchow asserts that many of the serous cysts develop without a particular matrix, as new formations in the connective tissue. It is a well-known physiological fact that the connective tissue cells are occasionally converted into endothelia, as during the formation of new synovial membranes, hence we should *a priori* expect that in simple serous cysts developed from connective tissue the inner surface of the sac would be lined with endothelia, the existence of which would be sufficient to disprove their branchial origin.

Cystic degeneration of the ganglion caroticum has been supposed to resemble branchial cysts. Luschka[1] has described a ductless gland between the external and internal carotid arteries, near the bifurcation of the common carotid, to which he has applied the term ganglion caroticum. As this gland is located where branchial cysts usually are found, he has made the assertion that many of the cysts in this region are due to a cystic degeneration of this gland. To cysts originating in this manner he has applied the term *hygroma colli.* The researches of Julius Arnold, however, do not corroborate the observations of Luschka, and Virchow positively denies the glandular nature of this body.

In repetition,I will enumerate the following points, which should be considered in the differential diagnosis of cystic tumors of the neck and with special reference to branchial cysts: 1. Primary seat of tumor. 2. Effect of pressure. 3. General condition and age of patient. 4. Character of contents.

Prognosis. Branchial cysts, although heterologous formations, always remain purely local affections and manifest no tendency to destroy life, except when they are of sufficient size to interfere by their presence with the performance of important functions of neighboring organs. On the other hand, it may be said that they manifest no tendency to spontaneous cure and prove exceedingly re-

1 Die Krankhaften Geschwuelste. Berlin. 1863. Vol. i. p. 246.

2 Die Lehrevon den Geschwuelsten. Pitha u. Billroth's Handb. d. allg. u. op. Chir. Vol. ii. p. ii. p. 127.

1 Virchow. Op. cit. vol. iii, p. 93

bellious to all forms of treatment short of complete extirpation. The serous variety in exceptional cases may undergo spontaneous absorption, and, as a rule, is most amenable to the milder forms of treatment. After the development of these tumors, their further growth maybecome stationary for a short time, but their tendency is to increase in size until they encroach upon important organs, when the suffering and distress which they occasion call for decided and effective operative measures for their removal.

Treatment. The inner surface of branchial cysts being lined with epithelium, it is evident that obliteration of the sac can only be obtained after the destruction or removal of this epidermal lining. Theradicaltreatment for the removal of these tumors must have for its object the production of an artificial inflammation in the interior of the sac of sufficient intensity to destroy the epidermal matrix, or complete extirpation of the cyst. The former procedure is exceedingly unreliable in its results, and extirpation in many instances must be looked upon as a very formidable and dangerous operation. The following methods have been resorted to in the treatment of branchial cysts: 1. Incision. 2. Actual cautery. 3. Seton. 4. Puncture with subsequent injection. 5. Extirpation. 6. Antiseptic drainage.

1 *Incision.* In all cases where incision was practiced, the relief from existing symptoms was prompt; the cyst collapsed, a certain amount of inflammation was established, suppuration followed, and, in some instances, the patient and surgeon were led to believe that a radical cure was obtained. Usually after healing of the wound a small nodule remained, which in a few months again became the seat of active tissue growth, and a speedy relapse was an almost constant occurrence. The result was not materially modified in case the sac was drained and injected with iodine or other irritating solutions. In infants the laying open of cysts is a perilous plan of treatment. Volkers relates a case where a cystic tumor was laid open in a newborn child that died 16 days afterward in consequence of the operation. A branchial cyst cured by simple incision is reported by Billroth. In the case of serous cysts where the seton and iodine injections have occasionally been successful in producing obliteration, it seems to me that the same object would be accomplished more speedily and safely by incision and drainage, practiced in a smilar manner as in Volkmann's operation for hydrocele.

2. *Actual cautery.* Dieffenbach employed the actual cautery in opening the cyst in one of his cases after he had made an unsuccessful attempt in removing it by extirpation, and after the incision had failed in producing obliteration of the sac. The use of the cautery met with no more encouraging result. It would seem to me that incision combined with an energetic use of the cautery would be most applicable in the most dangerous and formidable classes of cases, namely, in cysts which have become firmly adherent to the sheath of the cervical vessels by repeated attacks of inflammation. Should I ever meet with a similar case as the one reported in this paper, where the internal jugular vein was injured, I should make a free incision into the cyst, and after removing as much of the sac as would be compatible with safety, and after exposing to sight the floor of the cyst, I should destroy the entire epidermal matrix of the attached portion with a Paquelin cautery. The wound could be sutured and dressed the same as after excision, by which primary union of the wound with complete destruction of the matrix of the tumor could be secured, without exposing the patient to the much greater risk of injury to the internal jugular vein which would be incurred by attempting complete extirpation.

3. *Seton.* This form of treatment proved successful in several of Thos. Smith's cases of serous cysts of the neck, but in some of them the branchial origin of the cysts does not appear to be established. Smith[1] uses a single thread of silk, and removes it before suppuration sets in. If the tumor is polycystic, he attacks only one cyst at a time. Gurlt very justly has entered his protest against the use of the seton. Like in hydrocele, the seton is an exceedingly uncertain agent in calculating with precision the amount of inflammatory action which will follow its use. The degree of irritation produced by it is very liable to be inadequate to produce adhesion, or it exceeds the desirable boundary and induces suppuration with all its evil consequences. Even the seton is not devoid of danger. Butlin reports the case of a young child where a seton was passed through a serous tumor, and which was followed by death on the third day from the violence of the inflammation.[2] For this and other obvious reasons the seton should never be used in the treatment of branchial cysts.

4. *Puncture with subsequent injection.* In

1. Op. cit.

2. International Encyclop. of Surgery, New York, 1884. Vol. iv, p. 663.

the transactions of the fourth Congress of German Surgeons the treatment of branchial cysts by puncture and injection was fully discussed.[1] Esmarch's experience appeared to be the most extensive, and his results were more uniformly favorable than in the practice of any other surgeon. The following are some of Esmarch's remarks on this subject:[2]

"I have cured about a dozen cases by puncture and subsequent injection of Lugol's solution of iodine. (Iodinii, pot. iod. aa 1.25, aquæ 30.0). Against this treatment it has been urged that complete extirpation of the cyst can always be done and is free from danger. I must deny this assertion, because in a majority of cases the cyst is adherent to the sheath of the internal jugular vein, a fact which may remind you of a paper on this subject by Prof. von Langenbeck, which served as an introductory to his Archiv in 1860. In this paper Langenbeck called special attention to the dangers connected with this operation. But even if the operation were free from danger, yet by resorting to it we obtain an unsightly cicatrix in the neck, to which the female sex objects. I can, on the other hand, recommend injections of iodine as an efficacious and entirely safe procedure. If some of you have failed to see its benefits, it is, I believe, because you have not had the necessary patience and perseverance. As a rule, I have repeated the operation whenever obliteration did not promptly follow the first puncture. It is very essential to irrigate the sac thoroughly before the introduction of the iodine. I have generally proceeded as follows: By means of a fine hydrocele trocar I empty the sac of its contents, and then make repeated injections of a one per cent. solution of carbolic acid. This removes the masses of epithelium adherent to the cyst wall. I continue these injections until the water returns perfectly clear, and then I inject 10–20 grms. of Lugol's solution of iodine, which, after gentle pressure to bring it in contact with the inner surface of the sac, is allowed to escape. The patient is then directed to return in six or eight weeks. Like a hydrocele, the cyst refills rapidly and becomes somewhat painful. If, after the lapse of time mentioned, it has not greatly decreased in size, I repeat the same operation, and tell the patient to return in six months, when the cyst will be found atrophied to a small tubercle. In most cases the cure has been permanent."

1. Verhandl. der Deutschen Gesellschaft. f. Chirurgie, 1876. p. 25.

2. Op cit., p. 129.

In the discussion which followed, Langenbeck said: "I have treated a number of dermoid cysts with fatty contents by means of injections of iodine, but the injections always required repetition. I punctured the cyst with a large trocar, introduced a piece of elastic catheter and made daily injections. In one case the tumor returned. I consider it very difficult to cure these fatty cysts with injections of iodine or any other substance."

Roser admitted that injections of iodine might succeed in serous and mucous cysts, but that they would prove of no avail in atheromatous cysts. Baum asserted that extirpation was an easy matter, and that these cysts could be removed without difficulty.

Bardeleben believed that some of these cysts, especially those which extend behind the sternum, could not be extirpated, but obliteration in one instance was accomplished by antiseptic drainage. Volkmann spoke in favor of extirpation and warned against injections of iodine, as in case of failure they would render a subsequent excision more difficult.

It is evident that the majority of German surgeons who have given a good deal of attention to this subject have no confidence in the efficacy of iodine injections in obliterating branchial cysts. If we consider the numerous failures of iodine injections in cases of hydrocele, where the anatomical conditions for success are so much more favorable, we will be better prepared to appreciate the causes of its still more frequent failure when used in the treatment of branchial cysts. Again, clinical experience has shown that branchial cysts can be extirpated with comparative ease and safety before the cyst has become firmly fixed to the subjacent cervical vessels by inflammatory infiltration, and that in this class of cases iodine or any other injection will not only prove useless, but will render a subsequent extirpation still more difficult. In infants even simple tapping is not always devoid of danger, as one instance is recorded of death caused by puncture. The case occurred to Volkers, who tapped a cystic cervical tumor in an infant eight days old, the child dying of trismus on the third day.[1]

5. *Extirpation.* A positive diagnosis made, the best plan to pursue is to make an incision over the most prominent portion of the tumor, and, in case the adhesions can be separated without endangering the deep cer-

1 Dr. Storch Ueber das angeborene Hygrom des Halses. Journal für Kinderkrankheiten. Vol. xxxvii. p. 68.

vical vessels, the entire cyst should be removed. If inflammatory infiltrations obscure the field of operation at the base of the tumor, and after careful examination it is not deemed advisable to perform complete extirpation, the sac should be opened and the lateral walls excised, and the epidermal matrix, which remains adherent to the sheath of the cervical vessels, can be destroyed completely by a careful but vigorous use of the actual cautery. The treatment of the wound should be conducted as in cases of complete excision. If an early diagnosis is made, and prompt treatmeu instituted, complete extirpation should always be attempted, and will in the majority of cases prove successful and comparatively free from danger.

6. *Antiseptic drainage.* In the case of infants and very young children suffering from large serous cysts, it would be imprudent to resort to any of the severer measures with a view to a radical cure. In such instances, drainage under antiseptic precautions should be resorted to as a temporary measure, and in some instances it may be followed by permanent results. The same course of treatment should be adopted in adults suffering from cysts which are inaccessible to any other operation, and in which irritating injections are contra-indicated.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

REPORTED FOR THE REVIEW.

Stated Meeting, Saturday September 20. Dr. Dudley in the chair.

Dr. Edward Borck being called on by the president of the Society to give an account of the International Medical Congress, said:

Mr. President and Members: As a delegate from this Society to the Medical Congress my report, as intimated by the President, will be strictly confined to its proceedings.

But first a word about London. It surely is a great city; it abounds in hospitals and the clinics are numerous; and no matter whereever one goes he is kindly received,and every courtesy possible is shown to him; and what was still more gratifying tome was to hear the high commendations with which the officers speak of our American surgeons. They pay especial attention to Americans. As for myself, my pride was not a little stimulated, for everywhere I went I was well received, and in every city in Europe I found more than one who was acquainted with my name through my writings.

I visited two or three hospitals daily. "St. Thomas Hospital" is the grandest structure of them all, consisting of seven separate buildings, of which Sir Wm. McCormack is one of the surgeons and he desires to be kindly remembered to the profession of St. Louis.

The "Samaritan" is a small hospital, but it has at its head a great man—Sir Spencer Wells. Mr. Bantock and Mr. Thornton, the attending surgeonsi deserve special mention. The former uses distilled water in his operations, and has as good results without as others do with the spray. The latter surgeon uses carbolic acid spray.

The"Royal Orthopedic Hospital,"in charge of Mr. Baker, is a fine institution, and this gentleman takes great pains in showing his cases. Bnt here, as everywherere else, doctors are exceedingly fond of showing those cases of successful operation in which others have failed. You meet Dr. A., he has a case of injury previously treated by Drs. B. or C. who may not have accomplished a cure. Such a case is exhibited in triumph, and B. and C., are "blessed." You meet Dr. B. or C., and they happen to have a case on hand treated by Dr. A. in which he had failed; that case is exhibited, and with all due courtesy you are informed of the facts, and Dr. A. is "blessed."

"Kings College Hospital" is also a fine institution. Prof. Wood, one of the surgeons, is an excellent teacher. He combines the gentleman and the surgeon. He reminded me of my old preceptor, Prof. N. R. Smith of Baltimore, in the minuteness of demonstration, and his questions so gently propounded to the students. It is a pleasure to listen to such a clinical teacher. I went more than once to hear him, not so much to see his cases, as, if possible, to learn from him his method of teaching. The amount of work these men perform is astonishing—every other day attending the hospital, from 11 a. m. to 3 p. m., and all work done *gratis.* What an amount of time and service is given to suffering humanity by the profession everywhere. And still the people ask more of us. Where is the fault? I wish to criticise an almost universal practice. I don't see why Americatn students, and especially doctors, should go to Germany or to France, when London offers *all* the facilities they can possibly desire, and where there is no need of studying a foreign language. The professors even recommend their pupils to come to America for a trip of observation. In Paris I remained but a few days; for most of the great lights in medicine were enjoying their

vacation. At Frankfort-on-the-Main, the first German city in which I stopped, I met Dr. Henry Rehn, (well known to the profession as the renowned physician for children's diseases,) as well as other medical men. I visited Dr. Christ's "Children's Hospital" and the "Clementine Hospital" for girls, of which I will give a synopsis in the "Journal of Pedriatrics." Bad Homburg vor der Hœhe will be described in Dr. Jordan's Journal of Hygiene.

Hamburg is a large sea-port city. The "Algemeine Krankenhaus" in it contains 2,000 beds. Dr. Max Schede is the chief surgeon. He has five or six hundred cases in his section, and performs three or four capital operations a day. The material he has on hand is immense. Here I remained three weeks and attended his clinics every day. He used bichloride of mercury in solution, and the spray as an antiseptic, and claims never to have had a case of traumatic erysipelas since he discarded iodoform. Dr. Schede is the most elegant operator I saw abroad.

Berlin is also a great medical centre.

The medical congress at Copenhagen, to which I had the honor of being accredited, was a grand affair and was well managed. About the entertainments and excursions you have already read the reports in the papers. The dinner at the Royalpalace, provided by the Royal family, and the dinner given by the people, were indeed royal; and the pleasure of meeting the best and some of the greatest medical man of all nations, was a pleasure almost beyond expression. Tables with seats for about thirty were arranged in rows. At Table No. 4, where I was seated, Prof. Burchard, of Paris, presided. Next came myself, Prof. Nennet, of Dublin, Prof. Bryant, of London, Prof. Braun, of Leipzig, Dr. Engelmann and others.

As I spent all my time in the surgical section, I can only speak of the proceedings of that branch. I specially recommend the following papers to your consideration, viz., that of Henry F. Baker: "Treatment of Spinal Curvatures," with special reference to Sayre's method; Thos. Bryant on "Lumbar Colotomy;" Prof. Mikulicz, on the "Value of Iodoform for Wounds in Cavities lined with Mucous Membrane;" Harrison on "Prostatic Obstructions;" Dr. Schede, the "Sublimate Treatment of Wounds;" Mac Ewen, "Osteotomy for Genu Valgum;" all of which will be published in the medical journals as soon as I can get them ready.

It would be invidious and unjust to say that all the medical talent of the globe was gathered together at Copenhagen, but much of it undoubtedly was. In conclusion I will observe we look upon many foreign authors from a distance and with a mental magnifying-glass; but whenever we have a chance to meet them, and observe them closely, their intellectual magnitude does not appear as great. Then you will be disappointed. Such often was the result of my experience.

The English language is spoken everywhere, especially in North Germany; and what struck me with admiration was that two or three journals in English are found upon the table of every progressive physician. The London Lancet, the Philadelphia Journal of Science, and others are found, but hardly more than one German journal. The American journals are better, cheaper and better illustrated. The honest foreigner is always ready to give us full credit for our practical ability. I have often been asked: "Have you this or that in your country?" My uniform answer would be "Yes, we have all that you possess and a little more."

One can certainly learn a great deal if he makes his tour abroad for purposes of study and observation. I certainly saw and learned very much. One thing in particular, I observed. As far as the practice of medicine, the treatment of surgical cases, and operative manipulations are concerned, the surgeons abroad (I speak it without disparagement), do not know any more than we do here in our own country. With the exception of Dr. Schede, I nowhere saw so elegant an operator as Pancoast or Bigelow, or as the late N. R. Smith, and even other American surgeons. Our Hospitals also compare favorably with the European. I often heard expressed an ardent desire by the professors abroad to visit our country; and I am glad they will have a chance to gratify that desire three years hence, as the next Medical Congress is to be held at Washington, D. C. The time will soon come that, instead of our medical men going to Europe for special information, the Europeans will come to us. Such is my belief. I thank you for your kind attention.

CORRESPONDENCE.

NEW YORK LETTER.

New York, Sept. 21, 1881.

Editors Review:—Dr. Lawson Tait, of Birmingham, England, during his visit to this city has created not a little interest in the gynæcological department. He has been received very courteously. Dr. Fordyce Barker giving him a dinner

last Friday evening. Saturday he was invited to perform his operation upon two of Dr. Polk's cases in Bellevue Hospital. Although he was called upon very unexpectedly and there was little time to notify the body of the profession, an immense audience of students and practitioners were assembled.

Dr. Tait is a man above forty years of age, below the medium in height, thick-set, with rather long brown hair, and an almost clean shaven face. In address and conversation he is highly entertaining not to say magnetic.

The operations may be briefly described as follows. After the usual preparation and anæsthetization of the patient, the doctor counts out twelve sponges which he places in water. The instruments used are very simple consisting of a scalpel, a few artery clamps, needles and thread.

The abdominal wall of the first patient was opened to the peritoneum with one sweep of the knife. In each case both ovaries being diseased, both ovaries and their appendages we ligatured and removed; no ligatures were used elsewhere. Each operation occupied about twenty minutes.

In his preliminary remarks, he said "that he allowed no one to touch the sponges but himself, it being the business of the spectator to look on and not to assist." He related a case in which a gentleman seeing that he needed a small sponge divided one of the twelve unbeknown to himself and notwithstanding that he was careful,to count twelve sponges after the operation one was subsequently found post mortem in the abdominal cavity.

In closing,he expressed his appreciation for the attention he had received, saying, "that he had never heard of an American surgeon in Europe being called upon to operate before such an audience, and he knew of no satisfactory explanation of this neglect of the European surgeons, except it be that they lacked that sense of courtesy which the American alone possessed."

Dr. T. Addis Emmet will give a reception on next Friday to Dr. Playfair, of England; it is reported that three hundred physicians have been invited.

The opening of the Bellevue and University Medical College has revived the classes and hospital clinics. Andrew Carneige has donated $50,000 to the former college, which is to support a laboratory now being built a few steps from the college on Twenty-sixth Street. The College of Physicians and Surgeons opens October the first; the faculty have dispensed with the customary opening address as being superfluous.

The Polyclinic and Post-Graduate Schools are making great efforts to increase their facilities for practical teaching and study. The faculty of the former school have purchased the whole of the large building they partially occupied and are making extensive changes. The rooms are all very large and each admirably suitable for classes. The throat department has probably as fine an arrangement as any in the world; there are thirty stalls, one assigned to each student who treats his cases separately.

We are highly pleased with the Post-Graduate school, both in regard to the arrangement of its classes and the accommodationsfor retaining sick patients in the institution. The Pathological Laboratory and specimens are particulary fine. The school is now situated on East Twentieth Street.

Purulent conjunctivits is quite prevalent in our foundling asylums. J. W.

The Leather Gazette, a semi-monthly trade journal of St. Louis, in the last issue has an amusing editorial endeavoring to prove, byancient history, that tanners are, and always have been, exempt from cholera. Herein is a new alleged remedy then—roll in tan bark. The leather paper cites an old case wherein a monastery was turned into a tannery during an epidemic and all the monks escaped cholera; but at the time Divine interposition was claimed as the cause of the exemption.

DEATHS IN ST. LOUIS FOR THE WEEK ENDING SEPTEMBER 20, 1884.

Small-pox	
Measles	
Scarlatina	4
Diphtheria	8
Membranous croup	
Whooping cough	10
Typhoid fever	
Cerebro-spinal fever	
Remittent, Intermittent, Typho-malarial, congestive and simple continued fevers	12
Puerperal fever	1
Diarrhœl Diseases.	
Under 5 years	16
Other ages	4
Erysipelas	
Pyæmia and Septicæmia.	
Syphilis	
Inanition, want of breast milk, etc	6
Alcoholism	1
Other zymotic diseases	
Rheumatism and gout	
Cancer and malignant tumor	1
Phthisis and tuberculosis Pulmon	17
Marasmus—Tabes mesenterica and scrofula	6
Hydrocephalus, tubercular meningitis, etc	
Other constitutional diseases	
Bronchitis	7
Pneumonia	
Other diseases respiratory organs	3
Diseases of the circulatory system	2
Meningitis and encephalitis	5
Convulsions and trismus	7
Heat stroke	
Apoplexy	2
Other diseases of the brain and nervous system	6
Cirrhosis of liver and hepatitis	5
Enteritis, gastro-enteritis, peritonitis and gastritis	
Bright's disease and nephritis	
Other diseases urinary organs	1
Diseases generative organs	
Diseases of the locomotory organs	
Diseases of the integument	
Accidents of pregnancy and childbirth	
Congenital debility, malformation, etc	9
Senility	5
Surgical operations	
Deaths by suicide	2
Deaths by homicide	
Deaths by accident	7
Execution by warrant of law	
Unknown	
Total Deaths from all Causes	154
Total zymotic Diseases	65
Total Consitutional Diseases	24
Total Local Diseases	42
Total Developmental Diseases	14
Deaths by Violence	9
Unknown	

GIB. W. CARSON, M. D.,
Clerk of Health Commissioner and Board of Health.

THE WEEKLY MEDICAL REVIEW.

VOL. X. NO. 15. CHICAGO AND ST. LOUIS, OCTOBER 11, 1884. TERMS: $3 A YEAR.

THE AMERICAN PUBLIC HEALTH ASSOCIATION.—From all indications the twelfth annual meeting of this body in St. Louis, next week, October 14 to 17 inclusive, will be of great interest.

The final details of the sessions were arranged at a meeting of the local committee, held Tuesday, Oct. 7, Dr. Albert L. Gihon, U. S. N., Washington, D. C., the President of the Association, being present. The Local Committee of Arrangements, Dr. Joseph Spiegelhalter, Chairman, and Dr. George Homan, Secretary, have worked hard to make the event a success. Among the entertainments tendered the delegates and their families, we learn that there is to be an illumination of the streets of the city on one night, the fixtures of the Veiled Prophet's Parade, that took place this week remaining in place for that purpose; the Elks' Club have tendered a reception; Mr. Henry Shaw desires to entertain the delegates in his Botanical Gardens and residence one afternoon; all the Clubs offer the freedom of their establishments, etc.

All this is in no wise to interefere with the work of the meeting. There are to be two sessions a day; a morning session running from 10 A. M. to 2:30 P. M. and an evening session from 8 P. M. to 10 P. M. Among the many papers that are in, we learn that Major George M. Sternberg, M. D., Surgeon U. S. Army, will contribute a study on "Disease Germs," that will be presented with numerous diagrams and illustrations. This paper will be read on Wednesday evening.

For the information of all interested we give the following paragraphs of the Constition of the body referring to its objects and membership. It is necessary to add, that in return for the annual fee of membership, a copy of the transactions of each annual meeting, a handsome volume of 500–600 pages of reports, papers, charts, illustrations, etc., is mailed each member.

* * *

The objects of this Association shall be the advancement of sanitary science, and the promotion of organizations and measures for the practical application of public hygiene.

The members of this Association shall be known as Active and Associate. The Executive Committee shall determine for which class a candidate shall be proposed. The "Active" members shallconstitute the permanent bodyof the Association,subject to the provisions of the constitution as to continuance in membership. They shall be selected with special reference to the acknowledged interest in, or devotion to, sanitary studies and allied sciences, and to the practical application of the same. The 'Associate" members shall be elected with special reference to their general interest only in sanitary science, and have all the privileges and publications of the Association, but shall not be entitled to vote. All members shall be elected as follows:

Each candidate for admission shall first be proposed to the Executive Committee, in writing (which may be done at any time), with a statement of the business or profession, and special qualifications, of the person so proposed. On recommendation of a majority of the committee, and on receiving a vote of two-thirds of the members present at a regular meeting, the candidate shall be declared duly elected a member of the Association. The annual fee of membership in either class shall be five dollars.

SODA WATER.—After a protracted investigation, embracing the examination of experts

and a great deal of work by Dr. Bartley, analytical chemist of the Health Department of Brooklyn, Commissioner Raymond rendered a decision which prohibits the use of the washed-copper fountains for the storage of aerated water. The full text of the decision is as follows:

DEPARTMENT OF HEALTH,
BROOKLYN, September 25, 1884.

By virtue of the power conferred upon me by law, I do hereby declare the following practices dangerous and detrimental to the public health, and do prohibit the same in the city of Brooklyn:

First—The storage, keeping, selling, or having for sale of soda water or mineral water in tin-washed copper fountains or vessels.

Second—The storage, keeping, selling, or having for sale, of soda water, mineral water, syrups or flavoring extracts, in vessels composed in whole or in part of copper, lead or other poisonous substance.

Third—The selling, delivering or draughting of soda, water: mineral water, syrups or flavoring extracts, through pipes, faucets or taps, composed in whole or part of copper, lead or other poisonous substances, unless such pipes, faucets or taps are so lined, coated or protected as that the soda water, mineral water, syrup or flavoring extracts cannot come in contact with the copper lead or other poisonous substances composing the same.

J. H. RAYMOND, M. D
Commissioner of Health.

In an appendix to the order of prohibition, Dr. Raymond says that the evidence as given in the recent hearings satisfied him that the probability of soda water and mineral water becoming contaminated with poisonous substances was very great and that an examination just made by the chemist of the department, Dr. Bartley, confirms the opinion.

In addition to the hearings, Dr. Bartley made, at the request of Commissioner Raymond, a private and personal canvass of the stores in the city of Brooklyn where soda water is found on sale. He chose such of the main thoroughfares as Fulton street, Court street, Myrtle avenue, Smith street, Flatbush avenue, Atlantic avenue, Fifth avenue and Broadway.

Fifty-five examinations were made and copper was found in the syrup in eight instances and in the soda or mineral water in seventeen instances. But four tin washed copper fountains were in use and in every one Dr. Bentley found the soda water impregnated with copper. He reported the result of his investigations to Dr. Raymond, and that gentleman was, as above stated, convinced from the result that prohibitory measures were necessary. It is believed that the decision of Dr. Raymond will have a marked effect on the soda water trade not only in Brooklyn but throughout the country, and manufacturers will look on the decision with great interest. It is virtually a victory for the makers of the block tin lined fountains.

TREATMENT OF A FRACTURED PATELLA.—Sir Joseph Lister has recently published in the Lancet and British Medical Journal some of his experience with the wiring together of fractured bones. Two of these were ununited fractures of the olecranon process and seven were fractures of the patella. In his earlier experience he thought it necessary to prepare for a later removal of the silver wire employed to keep the parts together, but now he simply gives the wire two half round twists—one complete turn—cut the ends and with a small hammer, forces it down flat upon the bone. It appears from both Sir Joseph's article and one on the subject of Fractures of the Patella, etc., by MacEwen, of Glasgow, that one great obstacle to the union of the fragments of the patella is the fact that the soft parts from the anterior aspect of the patella fold over the fractured extremities and adhere intimately to the fractured surfaces, so that before the fractured surfaces can be brought into a favorable position for union, the soft-part that folds in has to be cut off.

The following is the modus operandi given in one case by Sir Joseph Lister:

"The clots having been cleared away from between the fragments, and from the interior

of the joint, I applied a common bradawl in the middle line of the patella, drilling each fragment obliquely so as to bring out the drill upon the broken surface a little distance from the cartilage. Pretty stout silver wire was then passed through the drilled openings and the fragments brought acurately into apposition. Before they were brought together, however, an arrangement was made for the drainage of the joint. This was done on the same principle in all the cases that I have to record, and I may therefore describe the matter once for all. A pair of dressing forceps with the blades closed were passed through the wound to the most dependent part of the joint at its outer aspect. The instrument was then forcibly thrust through the synovial membrane, the fibrous capsule, and the fascia, until the point of the forceps was felt under the skin. An incision was next made with a knife through the skin upon the end of the dressing forceps so as to allow it to protrude. The blades of the forceps were then expanded so as to enlarge the opening which they had made in the deeper structures without risk of causing hemorrhage. The drain was then seized in the forceps that protruded through the wound and drawn into the joint. The ends of the wire were now twisted together and the twisted ends brought out at the wound, which was closed with sutures and a small drain inserted. The limb, enveloped in an antiseptic dressing, was placed in a trough of Gooch's splint, with the upper end oblique, corresponding to the line from the tuberosity of the ischium to the great trochanter, and the lower end excavated in the form of a horseshoe, while the horns of the horseshoe were well padded to support the sides of the foot."

From the results obtained as compared with previous cases it would seem as though, with all attention to details such as modern surgery demands, that this mode of procedure will be the one employed. The rather indefinite expression used about "pretty stout silver wire" is elsewhere given with greater definiteness as follows:

The thickness of the wire must be proportioned to the force to which it is to be subjected. For the olecranon only one twenty-fifth of an inch is necessary, while for the shaft of the femur of an adult male, wire one tenth of an inch thick is necessary to resist the powerful muscles of the thigh.

After showing the peculiarities of the various cases he had treated, he continues: "These are all cases which I have operated upon, and I consider it fortunate that I am able to bring you six out of the seven. I should like now to say a few words as to the method of operating. There is very little indeed to be added to what I have already said, except this: It is very desirable that the lower surface of the patella should be left quite smooth. We cannot be perfectly sure when we drill that the bradawl will come out exactly at a corresponding point on the two surfaces. Supposing that on one side the instrument should have come out too far down, it may be into the cartilage, we do not regard that at first, but pass the wire through the two drill holes, and then on that side on which the hole has come too far down, by means of the bradawl we simply chip away a little of the material that is above the wire until the wire comes to be in a position exactly opposite to the hole on the other side, leaving a gap below. This is a perfectly simple matter; at the same time it might possibly not occur to any one during the operation. I think it must be admitted that these cases show that the mode of treatment which I have recommended, when applied to recent transverse fractures of the patella, affords a means of restoring the joint to practically a perfectly natural condition, provided that no disaster occurs. But that is a tremendous proviso, and no one is more conscious of it than myself. Before I made the incision in the first case that I have recorded to-night, I remarked to those who were assembled in the theatre that I considered no man justified in performing such an operation unless he could say with a clear conscious that he considered himself morally certain of avoiding the entrance of any septic mischief into the wound. Supposing on

the other hand, that a man can say that with a good conscience, then I conceive that he is not only justified but bound to give his patient the advantages that we see are to be derived from this method of procedure. We know, of course, quite well that by ordinary means of treatment patients often recover with very useful limbs. Every now and then osseous union is obtained. It is a thing which I used to pride myself formerly on striving to get, and I have achieved such a thing, but it was rare, and it was obtained by a very tedious process; and if ligamentous union occurred, we never felt sure that what was a very short ligamentous union when the patient was discharged might not be a long ligamentous union at a later period."

Koch on the Cholera Bacillus.—Those who study the patient work of Koch relative to the cholera-bacillus cannot avoid feeling the binding cord of conviction forcing their judgment to yield to his statement of the case. At the close of that part of his discussion before the Imperial German Board of Health he says:

"As far as I am myself concerned, the matter is clear, that the comma-bacilli are the cause of cholera."

The following description of the patient manner in which he investigated the possibility of infecting the lower animals with the microbe and his deductions from the failures will serve as a further testimony to the efficiency with which he disposes of a subject which he takes in hand. He continues:

"Now it can certainly be demanded that, if this be the case (that the comma-bacilli are the cause of cholera), further proofs should be brought in support of it, and above all, that the cholera-process should be produced experimentally by means of the comma-bacilli. Every imaginable effort has therefore been made to meet this demand. The only possible way of giving such a direct proof of the cholera-producing effect of comma-bacilli is to make experiments on animals, which, if we are to believe the statements of writers on the subject, can be done without any difficulty. It has been said that cases of cholera occurred amongst cows, dogs, poultry, elephants, cats, and several other animals; but on closer examination these statements are found to be quite unreliable. As yet we have no certain instance of animals falling spontaneously ill of cholera in periods of cholera. All experiments also, which have hitherto been made on animals with cholera-substances, have either a negative result, or, if they were said to give a positive result, they were not sufficiently supported by evidence, or were disputed by other experimenters. We occupied ourselves nevertheless, in the most careful and detailed manner, with experiments on animals. Because great value must be laid on the results on white mice obtained by Thiersch, I took fifty white mice with me from Berlin, and made all kinds of experiments on them, at first feeding them on the dejecta of cholera-patients and the contents of the intestine of cholera-corpses. We followed Thiersch's rules as accurately as posssible, not only feeding them with fresh material, but also with the same food after the fluids had began to decompose. Although these experiments were constantly repeated with material from fresh cholera-cases, our mice remained healthy. We then made experiments on monkeys, cats, poultry, dogs, and various other animals that we were able to get hold of; but we never were able to arrive at anything in animals similar to the cholera-process. In precisely the same manner we made experiments with the cultivations of comma-bacilli; these were also given as food in all stages of development. When experiments were made by feeding the animals with large quantities of comma-bacilli, on killing them, and examining the contents of their stomachs and intestines with a view to find comma-bacilli, it was seen that the comma-bacilli had already perished in the stomach and had usually not reached the intestinal canal. Other bacteria are different in this respect, for a beautifully red-coloured micrococcus was found accidentally at Calcutta was which easily recognized by its striking colour, and was therefore especially suitable for such an experiment. This micrococcus, was,

at my request, given by Dr. Barclay, of Calcutta, to mice as food, and the contents of the intestines of these animals were placed upon potatoes. The red colonies of the micrococcus again formed,which had thus passed the stomach of the mouse uninjured. On the other hand, comma-baccilli are destroyed in the stomachs of animals. We were forced to conclude from this that the failure of these experiments by feeding the animals was due to this property of the comma-bacilli. The experiment was therefore modified by introducing the substances direct into the intestines of the animals. The belly was opened and the liquid injected immediately into the small intestine with a Pravaz's syringe. The animal bore this very well, but it did not make them ill. We also tried to bring the cholera-dejecta as high as possible into the intestines of monkeys by means of a long catheter. This succeeded very well, but the animals did not suffer from it. I must also mention that purgatives were previously administered to the animals in order to put the intestines into a state of irritation, and then the infecting substance was givén, without obtaining any different result. The only experiment in which the comma-bacilli exhibited a pathogenic effect, which therfore gave hope at first that we should arrive at some result, was that in which pure cultivations were injected directly into the blood-vessels of rabbits or into the abdominal cavity of mice. Rabbits seemed very ill after the injection, but recovered after a few days. Mice, on the contrary, died from twenty-four to forty-eight hours after the injection, and comma-bacilli were found in their blood.

Of course, they must be administered to animals in large quantities; and it is not the same as in other experiments connected with infection, where the smallest quantities of infectious matter are used, and yet an effect is produced. In order to arrive at certainty whether animals can be infected with cholera I made inquiries everywhere in India whether similar diseases had ever been remarked in India amongst animals. In Bengal I was assured such phenomena had never occurred. This province is extremely thickly populated, and there are many kinds of animals there which live together with human beings. One would suppose, then, that in this country, where cholera exists in all parts of it continuously, animals must often receive into their digestive canal the infectious matter of cholera, and, indeed, in just as effective a form as human beings, but no case of an animal having an attack of cholera has ever been observed there. Hence I think that all the animals on which we can make experiments, and all those too, which come into contact with human beings are not liable to cholera, and that a real cholera-process cannot be artificially produced in them. We must, therefore, dispense with them as a material for affording proofs.

But with this I do not by any means intend to say that no proof at all can be brought of the pathogenic action of comma-bacilli. I have already explained to you that, for my own part, I can form no other idea, even without these experiments on animals, than that a connection exists between the comma-bacilli and the cholera-process. Should it prove possible later on to produce anything similar to cholera in animals, that would not, for me, prove anything more than the facts which we now have before us. Besides, we know of other diseases which cannot be transferred to animals, e. g., leprosy; and yet we must admit, from all that we know of leprosy-bacilli, that they are the cause of the disease. For this disease, also, we must dispense with experiments on animals, because as yet no species of animals has been found susceptible to leprosy. It is probably the same with enteric fever; I do not know that any one has ever succeeded in infecting animals with it. We must be satisfied with the fact, that we verify the constant presence of a particular kind of bacteria in the disease in question and the absence of the same bacteria in other diseases. The bacteria in question must always coincide exactly with the infections principle of this particular disease, and to this point I attach great value;the presence of pathogenic bacteria must be one corresponding to the pathological tranformations in the body, and to the course of the disease. On the other hand, we know of

diseases of animals, also, which cannot be transferred to human beings; for example, rinderpest and pneumonia of cattle. We meet here with a phenomenon widely spread in nature. Almost all parasites are restricted to only one or very few species of animals, which act as their host. I remind you of tapeworms, many kinds of animals have their own special tapeworm, which can only develop in one species of animal, and in no other.

Photometer for School Purposes.—Dr. Herman Cohn, of Breslau, gave, at the International Congress of Hygiene at The Hague, a description of a photometer by which he estimates the amount of light supplied to school children in their studies.

Facilities Afforded by the German Government for the Study of Micro-Organisms.—Herr von Gossler, Minister of Public Worship, Education, and Medical Affairs, has ordered that a certain number of medical men are to be summoned to Berlin every year, to go through a course of study, lasting from a fortnight to three weeks, in order to learn the new methods of investigation connected with bacteria and micro-organisms, but chiefly to become acquainted with everything connected with the comma-bacillus and the methods of cultivating it according to Koch's method. The several Federal Governments have been already requested to select a number of medical men for this course, and to inform them to hold themselves in readiness to come to Berlin. The day for the commencement of the first course has not yet been fixed, but will be fixed very shortly.

Combined Version in Placenta Prævia. — C. Behm, Centralbl. f. d. gesammte Therap., has used combined version in forty cases of placenta prævia without a single death. This must be regarded as an extraordinary good result for a condition which ordinarily gives a mortality of forty per cent. Hofmeier has already obtained similar results in the treatment of placenta prævia.

The operation is performed as follows: When dangerous hemorrhage comes on the vagina should be tamponed until the cervix is closed. This being done and the woman anæsthetized, the whole hand is introduced into the vagina, and two fingers into the cervix. If the membranes are present the operator endeavors to rupture them with the finger, then draws the presenting part (unless it be the buttock) to one side, at the same time making pressure from without so as to carry the buttocks down until he can grasp a foot. This is drawn through the cervix, so that the breech acts as a tampon on the lower segment of the uterus, and the placenta is pressed against the sides of the uterus. In central implanation of the placenta the finger should be pushed through the centre.

After this version the operator waits for the spontaneous expulsion of the child, or, at least, complete spontaneous dilation of the cervix, in order to complete delivery. The duration of labor after version is between one-half hour and eleven hours, the average being one or two hours.

The mortality for the children by this procedure is very great, but the chances for the mother are better. The mortality for the children is, however, no greater than by the old operation.

The causes of the great mortality of the mother under the use of the continuous tamponade is the infection through the blood and other matters adhering to the tampon.

Catheter Fever.—In a very interesting paper on this subject, Sir Andrew Clarke calls attention to a very significant fact, namely, that in all cases of catheter fever the urine, "is always loaded with micro-organisms of various kinds." Such a statement is pregnant with suggestion and although the Review is certainly not rampant on micro-organisms it sees in the the frequent act of catheterization the necessity of the greatest attention to cleanliness—a cleanliness which a patient would certainly not observe unless specially instructed. We speak of this the more earnestly, as it is possible after any operation for catheter fever to be developed and, associated

with the previous operation, the real cause of the consequent fever may be lost sight of. Catheterism, says Sir Andrew Clarke, in the Lancet, Dec. 22, 1884, is occasionally followed, by a fever, which has received the various names of urethral fever, urethro-vesical fever, urinary fever, uræmic fever, catheter fever, and so forth; in some cases this fever is dependent upon, or associated with, purulent arthritis, ordinary pyœmia—what is known in England as surgical kidney or interstitial nephritis—and, in a small, but still noticeable percentage of cases no adequate structural cause of death has been found. It was of this last variety of fever that I spoke upon a recent occasion at the Clinical Society, and it is of this variety alone that I make the following propositions:—

First, that about middle life in men perfectly healthy, or with no discoverable evidence of disease, except perhaps, and even that not always, a low density of urine, the commencement of habitual use of the catheter is sometimes followed by fever of the remittent type, which often ends in death, and that for the fatal issue in such cases no adequate structural explanation can be found. Secondly, that it is important that such a fever, arising in the midst of apparent health from such a seemingly small cause, and leading so often (as it certainly does) to a fatal issue, should be well and widely known, lest death should take the friends of the patient by surprise, and arrangements necessary to the welfare of a family should be left unmade. Thirdly, that although it is well known that in persons affected with renal disease, or with chronic goût, or with or with grave disorders of the general health, the commencement of habitual catheterism is attended with peril to life from secondary fever, the fact that this fever may arise in what seems to be good health, and without the mediation of any visible structural lesion, issue in death, is not well known—or at least well known only to a few—and has, I repeat, no adequate place in English surgical literature or in the English surgical teaching of this time. Of course this knowledge will be found in special monographs and papers, but those are the luxuries of the few, and for the most part the luxuries of specialists who work in that direction; but such knowledge should be, as I think, fully imported into all our common text-books, and so made accessible to the whole body of the profession. Fourthly, that this fever is neither distinctly uræmic nor distinctly pyæmic; that although, having some of the characters of each, it has all the necessary character of neither; that probably it begins in the nervous system; that probably the disturbance of the nervous system reacts in the first instance upon the general metabolism of the body, and in the second instance upon the secretory organs, beginning with the kidney; that the effect upon the kidney may consist either in structural alterations of the kidney, invisible by the aid of our finest instruments of research, or (as seems to me much more probable), in alteration of the constitution of the blood, that dyamic condition of its constituents in the renal vessels essential to the elaborative action of the secretory cells thereof; and lastly, that the concurrence of these conditions may, and often is, enforced by septic reabsorption into the blood. Fifthly, that a more complete knowledge of this variety of fever, and of the conditions of its origin, maintenance and increase may, at least we may hope, lead to a material diminution of its mortality; and that even now, by treating in a serious manner entrance upon catheter life by taking the precautions set forth by Sir Henry Thompson, by great temperance in the use of foods and stimulants, by rest, warmth, and by other general means upon which I shall not now dwell, such mortality, such mortality I repeat, may be possibly considerably diminished.

Of these propositions the one at the present moment most open to attack is the fourth, wherein it is asserted that this fever is not distinctive and exclusively uræmic. For in these days it has come to pass that almost every writer of distinction adheres to the view of the uræmic origin and nature of catheter fever, or of the thing known under that and other names, and I am, as it were, left by my-

self very imperfectly armed to oppose it. I oppose it. I ground my opposition to the exclusively uræmic theory upon the fact that the phenomena of catheter fever, not as they exist at a particular moment, but in their assemblage and in their progress, together, are different from those of the ordinarily recognized uræmia. The duration is at once longer and shorter—longer than that of acute uræmia, and wanting its headache, its perversions of sensation, its changes in the urine, its convulsions, its profound coma; shorter than that of chronic uræmia, wanting its neuralgias, its recurring headaches, its defects of sight, its fleeting paralyses, its itchings of the skin, its vomiting, its characteristic breath, its attacks of dyspnœa and palpitations, its painful nervousness, its low temperature. Furthermore, the urine of the catheter fever of this variety at least of catheter fever, is always loaded with micro-organisms of various kinds, and although it is deficient in urea and contains more or less albumen, it deposits no tube casts and it is capable of amendment. Lastly, while chronic uræmia issues in death, catheter fever may issue, sometimes does not issue, in complete recovery. Sir. Henry Thompson may remember that I saw him with a distinguished nobleman not far from Oxford street, who had to make an entrance upon catheter life, and he very justly and wisely warned the relatives that it was a serous procedure, and that perhaps he might suffer constitutional disturbance after the starting of this mode of life; and it happened that he did suffer this constitutional disturbance. It happened indeed that he had a mild variety of this fever which I am now describing, and that it continued for between a fortnight and three weeks. Eventually, with Sir Henry Thompson's help he recovered, and I think I may say now, five, six, or seven years afterward, he is in good health at an advanced age. Except in its long duration, in its occasional rigors of great severity and its exceptional clearness of mind, the phenomena of what is called endocardial fever resemble more nearly those of a fever which I have called for the moment catheter fever, than any other malady with which I am acquainted.

Two questions of a practical kind arise out of this study of the history of catheter fever. The first is this: seeing that by almost universal assent the fever originates at least in a disturbance of the nervous system, and seeing furthermore that in the cases accessible to me at least there is no account of the fever following in cases where narcotics or anæsthetics have been used, may it not be that the fever is capable of being cut short by the administration on entering upon habitual catheterism of narcotic or anæsthetic remedies? I remember that my great master, Syme, in Edinburgh, for a reason which his instincts very often knew better than his understanding, invariably gave his patients whom he had to catheterise frequently a grain or two of opium from the very beginning, and I must also add that he was singularly free from catheter accidents. The second question is this: assuming the presence of the fever, and seeing that quinine has signally failed in controlling it, what are the drugs to be employed on such occasions? and what is the sort of hygienic management to be followed, especially in respect of food and alcohol, which are so variously used on such occasions, in order that the fever may be brought, if that be possible, to a successful ending?

CONTRIBUTIONS.

PRESIDENT'S ADDRESS.

MEDICAL SOCIETY WORK.

B. M. GRIFFITH, M. D., SPRINGFIELD, ILL.

Delivered before the Mississippi Valley Medical Society.

LADIES AND GENTLEMEN OF THE MISSISSIPPI VALLEY MEDICAL SOCIETY.—I am under great obligations to you, more than I can express, for the very high compliment you paid me at the last meeting, in selecting me as your presiding officer.

I esteem it an honor that any member of this Society might be proud of, to be chosen its president.

Asking your assistance and indulgence in the execution of the duties of the office, I shall attempt them and indulge the hope that this meeting may be a source of profit and pleasure long remembered.

This organization is an outgrowth of the Tri-

State Medical Society and begins with a vigorous working capital of zealous, active medical men: which is a measure of success in the very first effort.

The Tri-State served its time in useful work and has passed into history; yet the fragrance of its memory still lingers with the membership, if the many letters written to me concerning its change of name is any indication of the sentiment existing. Whatever in any way belonged to the Society, either in good works or failures, is of the past, but the sound seed cast here and there have fallen on rich ground to bring fruit an hundred fold, to keep green the memory of its good deeds through the ages to come

Ten years ago at Vincennes, Ind., the first meeting of the Tri-State Society was held, Dr. J. W. Thompson, of Paducah, Kentucky, presiding. Every year since a meeting has been held, either in Indiana, Illinois or Kentucky, once in St. Louis, Mo., and each year's meeting seemed better than the preceding, full of work profitable to the profession.

Those who have been called to preside at the different meetings each have a place in the memory of the Society, kept alive by many worthy deeds.

Some of them are with us to-day, others are busy in professional work at home, and one whom we all so tenderly remember has gone hence. His generous, earnest, impulsive, faithful and zealous nature as a professional brother, leaves an ineffacable impression as to the man's identity, though we shall see him no more with us.

The Tri-State Society organized for mutual benefit in professional work and sought the advancement of the medical profession, both in the study of disease and practice of the healing art.

Inscribed on the banner "Benevolentia, Humanitas, et Scientia" was no meaningless insignia.

Its membership were representatives of the medical profession; not being a delegated body from other societies, its deliberations were untrameled by a code of medical ethics, as it was the purpose to give the entire time and work of the meeting to the reading and discussion of medical papers. Not that the society or its members disbelieved in or failed duly to observe the code, but that the integrity and zeal of its members were so plainly in the interest of professional decorum and required no written code as a monitor for his action or a test to try his professional brother.

Its membership had nothing in common with charlatanry nor irregularity in any phase; those having a selfish purpose to subserve had no place in it. Its simplicity of purpose and trustful reliance on the integrity of its members insured unity, confidence and strength, and the combined energy of its members was given to vital questions pertaining to the work of the profession.

By a simple method it dealt with all questions of professional claims or grievances, i. e., referred them to the local societies at home, believing such societies knew better the worth and standing of individual members and could more correctly and rightfully adjust all questions of ethics. A member of a local, district or State Society, graduate of a regular school, was eligible for membership in this.

How well it maintained the dignity and the good repute of the profession by this simple honest method of conducting its deliberations may be inferred from the fact that it was compelled by solicitation from neighboring States to extend the boundaries of its territory and change the name from that of a Tri-State society to one of more cosmopolitan name, the broad and comprehensive one, Mississippi Valley Medical Society.

It has striven to be be useful, instructive and dignified in all its deliberations, and the meetings have been harmonious, profitable and enjoyable. No discord mars the record of its proceedings and the membership combined an active, industrious, progressive class of medical men, each alike zealous to maintain the society in good repute and each reluctantly yielding to change of name and to a new organization.

This is the first meeting of the Mississippi Valley Medical Society, and while under a different name, the impress of the Tri-State hangs about it like a halo of sweet vapor which I earnestly hope may remain to leaven and inspire that fervor and zeal in the future work for the good of the people and the profession so conspicuously manifested in all the meetings of the old society of the past.

This is an age of change, an era of development, and I may be pardoned if I say for our people and our country, a constructive era.

In all that is useful, in all that adorns, beautifies and promotes the comfort and happiness of humanity, the workers of this age are seeking to develop and perfect substantial and practical buildings, improved facilities for travel, more thorough agriculture, more practical and more philosophical methods in all that pertains to domestic, social, political or professional life, all the toilers are on the alert to make it easier to live and render existence here happier and brighter.

An advanced civilization requires an educated and cultivated class of physicians to keep progress with the times, educated in the broadest sense of the term, liberally educated; educated in the correlative sciences whose interests are so intimately interwoven with that of the profession of medicine that the medical man to be useful, must be progressive, if he maintains himself and contributes his quota in this march of life. The people of this age require cultivated and scientific advisers for the perservation of public health as well as the care of individual cases of sickness and the treatment of various diseases. To the profession of medicine society must not only look for means and measures of promoting health, but securing immunity from epidemics and pestilence, all sanitary work being the philosophy of preventive measures, and to the people, freedom from the ravages of pestilence and plague.

This involves thorough preparation by arduous, earnest, self sacrificing labor and is purely the work of philanthropy in a measure of its highest type, it reaches the moral purity of mankind as well as the effect of physical suffering. It is the elevation of man on a plane above the mere sordid avarice for personal gain and physical gratification and brings out the Christian phase of human life in all its purity and sweetness unalloyed.

This phase of sanitation is an element in the better part of advanced civilization, contributing to the comfort and happiness of humanity undefiled by selfishness.

When we see devouring flames consuming great cities, famine depopulating broad lands, pestilence which walketh in darkness and destruction which wasteth at noonday—if these evils be averted, it means wiser building, thorough agriculture, careful drainage, vigilant inspection, rigid quarantine

and accurate knowledge of the causes culminating in these dire calamities, i. e., the destruction of property and discomfort and death of man.

The immutable laws of an allwise Providence are so certain in results that he who neglects these prudent maxims must suffer the consequences, physical punishment—death.

These laws bear so close relation to cause and effect that the studious, prudent, watchful and faithful in all that pertains to life, may not only avoid the evil growing out of ignorance and neglect, but profit by all there is in the universe—were not "all things made subordinate for the use of man and the glory of God"?

The study of disease-origin for sanitary purposes requires exact methods, accurate analysis of elements; the history, habits and effect of any cause must be known in every minutia, where an intelligent sanitary effort is to be made for the prevention or arrest of epidemics.

To be specific it requires a knowledge of the various parts composing the organism in every element of its requirements. The means and measures of healthful growth and the preservation of the body in a physiological state, free from diseases incident to food supply, clothing, air, water, habitation and climate, suitable to each organization.

Our greatly improved water supply, our system of sanitary police inspection, efforts and means for preventing epidemics are so many evidences of this cultivation, the only safeguards against suffering and pestilence wholly due to the skill in, and knowledge of medical philosophy.

The unnecessary slaughter of the human race by such plagues as yellow fever, cholera, smallpox, scarlet fever and diphtheria is in great measure due to our want of knowledge concerning the attributes of these diseases, and the failure to apply what we do know for their prevention; and it is a duty the medical profession owes to itself and humanity to thoroughly investigate them; and to the credit of the former, I am proud to say, it is being done, of which I shall yet mention.

For this sanitary study no part of society is so well qualified as the intelligent and educated physician; a part of his training and instruction has been the investigation of animal and vegetable life, the properties, purposes and effects under different conditions, and while the prime object of this study is a selfish work pursued for his own aggrandisement and self-maintenance, he does sacrifice his personal interest for the benefit of humanity where his efforts are made to perfect sanitary science and assist, nay direct, the method of its execution.

The germ theory as it is popularly termed, has elicited much interest in the study of the causes of diseases and the results have been very profitable in securing some very definite information.

Many diseases date their beginning from the introduction into the system of these bacteria, vibriones, bacilli, microbes, micrococci, cryptogams, "et id omne genus," and the most successful treatment includes the employment of germicides as well as antiseptics, in many types as very important and indispensable parts of the remedies.

It is sound philosophy that tangible bodies have an origin in some thing, substance or appreciable matter, and medical philosophy is no exception to this rule.

The student of disease-causes, who discards the mythical and absurd idea that disease is a dispensation of Divine Providence, sent as a special punishment in the flesh for the moral and religious benefit of the soul of the sufferer, and seeks among physical elements the principal factor, has made material advancement in the work. Life has a certain arrangement of matter operating under fixed laws belonging to this; under this adjustment, this is health. The introduction of a foreign germ not in conformity with this arrangement and governed by different laws, disturbs the healthy equilibrium—attempts to organize under its own system from material here existing, and disease is sometimes the result.

The gravity and character of that disease will depend upon the composition of the disturbing element and its power of selfpropagation and organization, its power to overthrow the existing health condition and convert to its own purposes material necessary to continue the healthy existence of the former.

All phenomena of disease incident to mankind may be due to the introduction of germs foreign to the human system, or the generating in the system, by perverted action of material not in harmony with healthy processes.

The repeated epidemics of yellow fever, spreading death and desolation over the fairest portion of our country, interested our profession to a closer and definite study of the causes, origin and habits of this dire malady, and we have some cause for congratulation that progress has been made as to knowledge of the elements of yellow fever and the method of its propagation, and owing to better sanitary restrictions, we have for a few years been exempt from a repetition of its ravages.

So interesting a subject elicited many investigations, and while discussions were not at all times in the same direction and not always in harmony the work was done with an earnest desire to know the origin and cause of yellow fever, and the result has been in the main satisfactory.

Among others Dr. Domingo Freire in his study found a parasite which he believes specific. This microorganism he chooses to term a cryptococcus—injected into the saphenous vein of a rabbit or guniea pig it caused speedy death.

The blood of these animals used to inoculate others, resulted in death, in a very short time, exhibiting phenomena of yellow fever. According to these observers the earth of cemeteries and some of the streets of Rio Janeiro and Vera Cruz, after being diluted and filtered produced yellow fever when used for inoculation.

The cholera which looks so threatening from our Eastern shores in its ravages through Southern France, Italy and Spain, warns us of danger sooner or later, and awakens a desire and intention of the profession to inquire into its habits and its causes with the purpose of meeting the monster on the very threshold of its invasion. Medical men and sanitarians are on the alert and if possible a lodgment in our ports will be prevented. If not successful in this, its ravages may be limited to the original places of invasion. The medical profession in Europe whom we should delight to honor, "have dared to beard the lion in his den," and know something of the essential elements of this dreaded pestilence.

Koch, Pettenkofer and Virchow conspicuously, and some others equally philanthropic, have made a thorough investigation as time and material could allow and that of Dr. Koch is specific. He claims to have discovered the bacillus propagating cholera, found it wherever cholera existed

and by experiment demonstrated the relation of this microbe to cholera. The dried microbes brought from the field of his researches, have produced cholera by inoculation. There can be no other inference from these facts, confirmed by most experimenters. except the last item, than that cholera is *infectious* and possibly contagious and rigid quaratine the only protection.

The Ganges is the home of cholera; the microbes are indigenous and find material there for propogation among the hordes of filthy pilgrims annually visiting its borders. The truth of this established, a rigid non-intercourse is the only method of preventing infection.

The real stamping-out place is where the epidemic originates, its very fountain head should be sought out and crushed.

This is not Marseilles, Alexandria or Cairo, but in Southern Asia (India, and Arabia), among the filthy hordes of the Asiatics in the pilgrimages to the holy cities. These are the hot beds and pest-houses where the germs are propagated and nurtured for dissemination.

England has modified the danger in India and demonstrated the proposition that the causes for these great epidemics which have gone stalking over the earth can be prevented by vigorous and positive means. But there remains Mecca and Medina, holy cities of Arabia, as well as Bokhara, Meshed and Juggernaut of Hindostan in India, where Moslem fanaticism assembles its masses, who, from their filthy bodies emit the foul stench that breeds disease and death to countless thousands. Let these pilgrimages be conducted under sanitary regulations or prohibited.

There has been a material hesitancy on the part of Christendom to interfere with the religious prejudices of these Moslem or other heathen populations in their periodical assembly for worship, and even the missionary force have made but little impression upon the hygiene of these pilgrims.

Since communication with that country is possible for all nations, the sanitary condition becomes an important one in which the world is interested, as all countries are liable to be contaminated and measures *must* be adopted to stamp out the pestilenc-ebreeding ground and compel these people to observe sanitary laws.

The civilized nations have a common interest in protesting, that any part of earth shall be, by the habits of the people, made the hot beds for the propagation of pestilence like cholera, yellow fever, or other plagues, creating havoc and destruction of life along its pathway.

The combined influence of England, Russia, Germany and France together with Turkey, who holds the key to the situation, could organize for this sanitary work, and the whole civilized world has the right to insist upon, and even demand, that this pestilence-breeding area be quarantined and disinfected.

The profession is greatly indebted to scientists for these special researches and investigation of diseases in a specific and methodical way for a definite purpose and it generally honors the toiler with a just meed of praise for his achievement.

These studies are usually pursued at greater expense of time and money than the majority of the profession can afford, even if prepared by training and culture for the work. It requires time and careful observation of facts to verify the correctness of any proposition of the kind.

It is four years since M. Pasteur began the study of hydrophobia in a practical and analytical method. His ability to make this investigation is conceded and the gravity of the subject adds unusual interest to his work. His observations, you remember, led to the assumption that hydrophobia is a disease of the nervous centre, induced by specific virus, and he instituted experiments to verify his theory, or rather to disclose the facts. The virus of rabid animals was injected into the brain of the dog, guinea pig and rabbit. The effect, rabies, was much sooner obtained in this way than by the inocculation of "dog bite." Instead of weeks, months and sometimes years incubating, rabies appeared in a few days.

The experiments were interesting and novel in the physiological effects. He observed in connection with these experiments that the virus transmitted through some species of animals modifies the virulence and yet preserves its specific impress.

Monkeys have been inoculated with the poison from the dog, after it has passed through one or two successions. It becomes so attenuated that the inoculation of the animals with the virus shows only mild symptoms of hydrophobia, while at the same time a dog so inoculated is proof against the original disease.

On the other hand the virus in its passage through the rabbit and guinea pig increases in virulence, its intensity being even greater than that of the virus taken from the rabid dog in the usual way, the intensity increasing through several transmissions.

The transmission through some animals modifies, while the transmission through others intensifies the virus—but the specific effect from attenuated virus is sufficient to protect against any subsequent rabies in the dog, the only animal tested in that way. If further experiment corroborates this it may prove a valuable means in the hands of the practitioner, as he assumes (though undemonstrated, except in the dog), that a subject bitten by a rabid dog may be inoculated with attenuated virus and so modify the effect of the dog bite as to render the rabies harmless. Pasteur claims there is nothing virulent except the saliva, salivary glands, and nervous system. Blood, muscle and viscera, do not appear to contain virus.

In the pursuit of these investigations there is great prejudice with the people. Public sentiment is averse to dissection and especially to vivisection, and ought to be educated to the necessity of study in this way—and the people ought to see the utility of liberal laws regulating the study of practical anatomy and pathology.

Many citizens look upon dissection, and particularly experiments upon the living animal as barbarous, inhuman and unnecessary. These false notions, medical societies and the profession can correct by a proper effort.

This necessary legislation cannot be had until the minds of the people are disabused of the error. It seems inconsistent that so much adverse sentiment should exist on this subject when the people clamor so vociferously for the execution of criminals and even anticipate a tardy justice in the execution where a suspicion lurks that the authorities may fail. Yet this is the acme of barbarity and outrageously inhuman to encourage mob law. Compared to dissection, especially when humanity is the beneficiary, it is ignorance and prejudice inexcusable.

Mob law, as a retribuative justice may be sometimes tolerated, even as a dire necessity—but dissection should not always be compelled to be secretly made and the material, clandestinely obtained, except an insignificant supply provided for by law. A subject of such vital importance and one in which every man, woman and child living are intensely interested, as all are liable to sickness, and expect to participate in the beneficial results of the knowledge and skill arising from this work, should be more thoroughly understood. Medical societies and medical men are the most available means to accomplish this teaching.

The expression of the Illinois State Board of Health at a recent meeting is so pertinent, so sensibly in the right direction and fully meets the case, when it resolves "that the importance of the study of practical anatomy as a foundation for surgical knowledge and skill demands that the supply for material for study be more definitely regulated and its necessity recognized by law."

Whatever adverse criticism there may be from those who are affected by the operation of a law regulating the practice of medicine, only those whose selfish interests are interfered with will deny the necessity and benefit of such a law, or will fail to recognize the great good to the people as well as the medical profession. The Illinois State Board fosters and encourages a high standard of medical education, which is thoroughly in the interest of the honest physician and to the protection of the people.

The requirements of a liberal education before matriculating is proper and just, as a beginning for thorough medical culture, as well as protection against incompetency. The refusal of State boards, having the power, to recognize diplomas of colleges not requiring the preliminary examination or its equivalent in certificate or diploma from some institution of literary education, is a work in the right direction, should be and is endorsed by the medical profession and especially medical societies.

Medicine is one of the most liberal and scientific professions and its following must be liberally educated to fulfill the requirements for the work. The more thorough and the broader the elementary education, the better and stronger the foundation for future professional culture and the greater the prospect for usefulness and success in the practice.

The older members of the profession appreciate the advantages of thorough education, not only in language, geography and mathematics, but in philosophy, rhetoric, history and the natural sciences. It is not, as some would-be critics have sneeringly said, "the profession is too full and the standard of education must be raised to keep down the number," but the truth is, preliminary and college education must be more thorough, because the profession is too full of incompetent and unqualified practitioners, who are a disgrace to the profession and a criminal imposition on suffering humanity.

It is difficult enough and a case of serious responsibility to practice, having all the education and training possible to be obtained, but it becomes a crime for which there is no palliation when incompetent and uneducated men are permitted to practice, and the profession in some degree, and our medical colleges to a greater, are responsible for this crime.

The experience of this year's work in soliciting papers and preparing programme for meeting has demonstrated the fact that our present system is not the best and ought to be improved.

To canvass the increased territory and justly distribute the work cannot be easily accomplished by the effort of one man so thoroughly as by division of labor. Our present incumbent (chairman of committee on programme) has this year performed a herculean task, and one that ought not to be inflicted on any one member of society.

I would suggest for your consideration and action that instead of requiring the chairman of programme, committee to do this, that it be divided among several special committees, these to be, one on Surgery, and on Practice of Medicine, one on Obstetrics and Gynæcology, one on Drugs and Medicines and one on Chemistry and Toxicology. In all five committees, the chairman of each to be named by the nominating committee at the time of selecting officers and place of meeting. The chairman of each committee at his earliest convenience is to select his assistance from the membership and the profession and report results to the chairman of committee on programme for his arrangement and tabulation.

For obvious reasons this method would secure broader fields of labor and give greater opportunity for thorough work.

I would suggest that some definite action be taken as to the proceedings of this society. The papers and discussions of the members contributing ought to be in some shape that can be read at leisure.

I would suggest a committee on publication be named, among yourselves, one from each State, to discuss this subject and report its deliberations before the adjournment of this year's session.

In conclusion I thank you for your indulgence, and ask your kind assistance in conducting our deliberations.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

REPORTED FOR THE REVIEW.

Stated Meeting, Sept., 27, 1884.

Dr. Rumbold.—Mr. President, in regard to my trip. The first place visited was Belfast, Ireland; the profession made their best effort to entertain the British Medical Association and I think they succeeded admirably. The session was a very profitable one and will pay every member for loss of time and expense of attending it. It is a hard working association. A short time only was given to the general session, it being held only in the afternoon. At 9 o'clock in the forenoon the sections commenced work; sometimes two sections were combined when the subjects were allied and would permit of it; for instance, such subjects as those of physiology and anatomy. So also the sections on surgery and medicine. This was the first occasion on

which I have noticed such a combination of sections. Of course in the sessions of the "International Congress" such sections were combined as those for "Diseases of Throat and Ear.

Dr. Redford, of Belfast, read a very interesting paper on physiology, respecting which I heard it remarked by those in a position to know, that it is the most advanced paper that has been published in the English language. The meeting of the "International Congress" at Copenhagen, having already been reported on, I will pass it, only observing that I was well pleased with that meeting, and with the rare hospitalities I received from the citizens from one resident especially. I then wended my way to Berlin, spending there a week in the hospitals and clinics, having special regard to those for "Diseases of the Throat and Ear;" I could find none for "Diseases of the Nose." The surgeons make use of the applications and methods with which we have become familiar from their works. I was desirous of seeing with my own eyes these methods, and also to converse with the most prominent men, which I was fortunate in being able to do. In Berlin they use the argand burners, sometimes covered and sometimes not covered, for illumination; the head reflector is held by a rubber band about the head; they also use the probang and make applications of nitrate of silver and iodine, etc. They use cotton in the manner which in New York is called the cotton applicator, employed for iodine application in the treatment of pharyngitis—thrusting it behind the soft palate in the posterior nares. In Vienna the "Allgemeine Krankenhaus" is a very large hospital, probably the most wonderful hospital in the world; it is the largest I visited. It has three thousand beds; it embraces clinics of all descriptions, where all diseases are treated, besides one clinic just outside the hospital; there they use the argand burner and not electricity. I was surprised that they did not use electricity. In Paris instead of using the gas light they use the lime light, which is a very great improvement on the argand burner. In London they still follow the method of using the rubber band holding the head reflector and speculum with an enclosure around the argand burner. They do not seem to pay much attention to catarrh; a few apply a sponge, or I really cannot tell whether it is sponge or cotton, with tincture of iodine to the nasal meatus, and after that they apply a whitish powder to the nostrils; this is all they do for their cases. The Congress at Basle was composed of 81 members; a very few papers were read in English and some of the discussions were in this language. A number of very interesting microscopical specimens, physiological and pathological, of the ear were presented, and I was informed that the papers of some of the French physicians were quite important and valuable. The Congress in Basle was larger than I expected, considering the special subjects which it considered. The members of the profession in Basle were very attentive to all visitors. Two trains arrived each day; and during the whole time of the session a committee of three or five members of the profession were delegated to meet at the station any one coming in on these trains; these were at once taken to a hotel or private house as they chose; and in either case all their expenses were paid. Whether this was done with all who attended or only the foreigners, I do not know; that is the manner in which they treated me. I would like to present two new instruments which I procured abroad. This is a surface thermometer which I will pass around; the other is an instrument for producing light, convenient in examining the throat; it affords a very good light. The surface thermometer can be put upon any portion of the body; it is a little different from other surface thermometers, which are commonly used here.

Dr. McCandless was invited to make a report upon the meeting of the Mississippi Valley Medical Association, at Springfield, Ill.

Dr. McCandless.—I am sorry I cannot give you in extenso a description of the proceedings at Springfield, as Dr. Rumbold has done in reference to the Associations he has attended. The Convention adjourned on last Thursday; I attended the meetings on that day. It was expected the sessions would continue through Friday, but all the papers prepared and presented were read by that time and there was nothing further for the Society to do. The first paper, read on Thursday, was by Dr. Fairbrother, of East St. Louis, on "The Repair of Bone." The theories which he propounded, stated briefly, were: that the callus was probably formed more from deposits from the blood than from the periosteum. In proof of this he gave illustrations where bone had been found in various portions of the body, away from any other bony structure; for instance, in the brain and valves of the heart; also it had been found in muscles and localized osteophytes.

This of course provoked considerable discussion and was probably one of the most interesting papers that was read during the session that day. Of course, this brought up the

point of the original growth and development of bone in later fetal life, and the repair of injured bone. After this a paper was read by Dr. Griffith, of Springfield, on the "Habitual Dislocation of the Humerus into the Axilla, and the Treatment of it, Palliative and Curative." He presented to the Society a patient whom he had treated and showed his methods of treatment. This patient had suffered a dislocation for a number of years previous; since, the bone had been dislocated 45 times and replaced and kept in position by a variety of appliances. For the last 16 months the bone had not been dislocated and he had simply made use of Martin's bandage, putting it around the arm about the insertion of the deltoid, and bringing it around, so applying the bandage as to prevent the arm from being raised above a certain point. During the last three months the patient has gone without the bandage almost continually, and at no time since the use of bandage has the arm been dislocated although he has followed the same occupation that he previously did. After this some papers were read on "Medical Education," and a paper on "Life Insurance," by Dr. Burton, secretary of the Association. This was followed by an address by Dr.Bernays on "Chips from a Surgeon's Work Shop." He first gave his method of extirpating the uterus, with which we are all familiar. Following a discussion of that subject he presented the subject of amputation without the loss of a drop of blood. The method which he described was by the application of Martin's or Esmarch's bandage and elevating the limbs for perhaps half an hour, then securing the vessels, that might bleed, with ligatures, then dressing the limb while in an elevated position with antiseptic dressing, after which a Martin's bandage is applied to the stump, keeping it elevated for some length of time, having first stitched the flaps by means of what might be called a mattress suture, sewing the skin to the muscles and then bringing up the skin from the lower side. Then he gave a description of the treatment of stricture of the urethra not pathological, but, you might say, the rationale of the treatment by division or cutting of the stricture, showing that in that way the stricture could be cured; the same process being involved as in fissure or fistula of the anus by rupture or cutting the sphincter of the bowel by which the parts are put at rest; that he claimed as a rare discovery. One paper was read in the afternoon on "Hygiene." The Association adjourned to meet next year at Evansville. It was expected to adjourn to meet at Nashville, but it was finally decided to meet at Evansville. The Association held sessions on Tuesday, Wednesday and Thursday. The attendance was very small, there probably being not more than fifty present at any time, and not more than half the papers were presented that were advertised on the programme.

Dr. Borck.—I have here a sample of a dressing which is used somewhat extensively by surgeons in Europe. It is called the moss dressing, and is very cheap, costing about $2.50 per hundred pounds. They put on such an abundance of pillows of this article that when they get through dressing a limb, it looks like a feather bed or some kind of mattress. I don't think it is necessary to put on such quantities of it.

I have another article which I merely pass around as a curiosity. I procured it at the "International" surgical section. This needle was presented there as something new. A safety pin was patented long ago by some Frenchman; this pin was presented by someone at the International Association and I present it simply as a curiosity. Some of the members thought it was a very nice surgical needle; I told them that this was nothing new in the United States, and that I had bought them for 15 cents apiece 30 years ago. I merely exhibit this to show what advancement they have made. A word in regard to Dr. Bernays' paper on the bloodless amputation. This can be done of course; and after the amputation of the limb, the patient actually will have more blood in his body relatively than before. There is nothing new about this; it has been done long ago.

Dr. McPheeters.—In the absence of anything else I will report a case of excessive amount of liquor amnii; it is certainly the most remarkable case of the kind that I have ever met. A lady pregnant with her fifth child (four or five years having elapsed since her last pregnancy), noticed very early in her gestation that she was unusually large and towards the seventh month had become so enormously large that she was unwieldy, couldn't turn in bed; and about the eighth month her husband waited on me and desired me to bring on labor, saying it was impossible for his wife to go to full term; that she couldn't live. Her limbs were enormously distended —edematous. Her abdomen was in a state of extreme tension and I thought there was going to be a litter of children probably. I auscultated her and could hear a very indistinct sound; I was not satisfied with it; it seemed to be so remote and feeble that I could hardly determine whether it was a fetal heart beat or not. However, I refused to do anything towards bringing on labor. I

tried to keep her kidneys in an active state and her bowels open so as to remove the œdematous condition as much as possible. I examined her urine and found no trace of albumen at all. In the course of time labor at the full term came on and before the child was born the whole bed and floor were literally covered with water. I made a trough along the bed and had a bucket brought, which was filled with the water. There must have been at least three or four gallons. I never met with but one case that had at all approximated this. There is nothing very remarkable about the case except that it is certainly unusual to find such a quantity of fluid. The child weighed about 10 pounds and was born alive. This enormous quantity of water came away before the birth of the child and afterwards of course there was a good deal more. I didn't think of collecting it until it had run over the floor and flooded the bed, then I called for a bucket and made a drain and collected a bucket full of the water. The woman made a good recovery; the edematous condition in time passed off; the kidneys secreted enormous quantities of urine. During the last month of gestation I felt some little apprehension. The lungs were very much encroached upon and the diaphragm was very much pushed upwards. I have no theory to suggest as to the cause of the secretion of this excessive amount.

Dr. Dean–I would like to have Dr. Atwood state how much fluid came away in a similar case which he mentioned some months ago?

Dr. Atwood.—There was amniotic dropsy to a great extent. The mattresses and feather bed were saturated with water; and water ran down upon the floor, filled a bucket and ran across the house, and singularly enough —and I take some credit to myself, although I believe I have some reputation for modesty —on examining the woman I turned to the nurse and said,"It is a child without a head." In other words, I diagnosed from the condition of affairs an acephalous child, and I was right. In passing my finger around I detected the margin of the skull as represented by a line drawn just passing through the os frontis and temporal bone so as to allow it to project a quarter of an inch above it, and passing my finger around it I felt the margin of the skull, and there was no calvarium present; so I at once determined it was a child without a head and so expressed myself. The woman had a good recovery; the child of course was born dead. There was no evidence of the walls being present. The brain was only rudimentary. There was no hydrocephalic fluid at all; there was no scalp covering it; there was some swelling of the spinal cord over the occipital region internally and it presented a dark red tinge.

I made the diagnosis stated from the following data: Many years ago, about the year 1848, Dr. John S. Moore, a member of this Society, had delivered a lady of a similar child and had the specimen preserved in a bottle; I had often examined it and noticed the peculiar position of the ears with reference to the margin of the skull and the calvarium wanting. And in this case in making a digital examination I detected very plainly the hard points and the ears sticking up, and therefore determined it was an acephalous child, which it proved to be.

Dr. Borck.—I wish to call attention to the appearance of the forehead of Dr. Atwood for one moment; he put this surface thermometer on his forehead and the place of application looks almost as if you had applied to the spot a cupping-glass. Now the question I want to raise is this: can this surface thermometer be correct? Certainly if you put it upon the body in consequence of the vacuum made it will draw such a quantity of blood as it has in this case and the thermometer will indicate greater heat than actually exists.

Dr. Dean.—The same objection that Dr. Borck has raised to this surface thermometer occurred to me. and I should want to test one of them carefully with other surface thermometers before I would be willing to rely much on it. Even the ordinary surface thermometer, if pressed against the parts to which it is applied is inaccurate in all probabilities, as it must change the circulation of the parts, and it requires a considerable length of time to allow the mercury to assume the position, by the heat of the body, which indicates the actual temperature. Some years ago when Dr. Seguin, of New York, first introduced surface thermometers, it was stated that the weight of the thermometer, even resting on the bulb, would raise the mercury something like one-fifth of a degree; the bulb of the thermometer or coil of the thermometer, even when barely touching the skin, would by the pressure be somewhat changed, so that it is doubtful whether the mercury would indicate the correct temperature. Even the slightest pressure upon the thick bulb serves to raise the mercury one-fifth of a degree, and even by holding it between the thumb and finger in the same way as most thermometers are held, it would be found that the mercury would be raised.

Dr. Rumbold.—I would like to make a few remarks in reference to the surface thermometer. The objection which Dr. Borck raises

is not a valid one, for the reason that a large quantity of blood will give no more heat. Dr. Atwood had that thermometer on his head for fully 20 minutes instead of three minutes. I think one minute is long enough to get the temperature of the surface of the body. Of course if the thermometer is kept upon the forehead for a very long time local irritation may be set up and then we would get greater heat than that of the surface of the body.

Dr. Love.—The temperature registered on my forehead in two minutes was 100 and I know I have no fever.

Dr. Atwood.—I held it on my forehead 20 minutes, or at least 10 minutes, and it registered 95$\frac{2}{5}$.

Dr. Alt.—I had occasion to see quite an interesting case a few days ago. A gentleman came to me who had lost one eye some 18 or 20 years ago;his other eye had a number of necrotic ulcers on the cornea; but he came to me complaining of pain which he said he had had for quite a long time, although the ulcers had diminished in size within the last few weeks, I looked at the cornea and I saw a black spot in the lower part of it and it at once struck me that it was a foreign body, and I asked him in regard to having received an injury; but he said he knew nothing about it. I examined the foreign body and found that it would roll about in the anterior chamber as I changed the position of the head, always assuming a position in the lowest part of the chamber. I have never seen anything of the kind before. I don't know whether it is interesting to the oculists or not. The man didn't know that he had received any injury or how this foreign body had gotten into the eye, yet it was as large as a large-sized pin's head and rolled about in the anterior chamber. I wanted to remove it, but he is so much afraid of losing his eye that he would not consent. It looked to me like a piece of metal. The patient is a shoemaker, and a fragment might possibly have been broken off from one of his hammers or a nail or something, and has been projected into the anterior chamber. It has caused no ulceration whatever. The body looks like oxidized metal. I assume that it is a heavy body, because it rolled about; and as soon as I turned his head it went to the lowest part.

Dr. Williams.—I saw this case several months ago, and that time I noticed this substance whatever it it is; it is in the anterior chamber. I tried to get at the history of the trouble but couldn't. The patient at that time seemed to know nothing about it. I was under the impression that it was something growing there, exactly what its nature was I was not able to determine; I am not certain, however, that it is not metal. I told the man or rather told his daughter what kind of trouble he had in the anterior chamber,or what I could see there,and told her that I was anxious to observe the progress of the trouble for a considerable time in order that I might determine whether this substance increased or whether it remained stationary. I am not satisfied that it is metallic, because there was absolutely no history of any injury having been done that I could ascertain. The ulcers of the cornea in that case have persisted to my knowledge for four or five years. Several years ago I saw this same patient and he had this same condition of chronic keratitis; but at that time I didn't discover the presence of this foreign substance. Since that time this patient has gone abroad to Germany especially and has been examined by most of the distinguished specialists in the old country and none of them discovered the presence of this foreign substance in the eye. I suspect very strongly that it is something that has developed within the eye and possibly will grow. I first saw this patient some five or six years ago. On the occasion of his last visit at my office I discovered the presence of this substance; before that time I had not discovered it and do not believe it was there.

Dr. Borck.—Is there no way of determining whether this foreign body that is moving in the anterior chamber is a metallic substance or not; could it not be determined by the use of a magnet?

Dr. Alt.—I do not believe that it is something that is growing in the eye; so far as we know, the only thing which it can be it is a melanotic tumor; this may have developed and in some way become detached, as they sometimes do, and thus roll about in the anterior chamber. So far as I know this has never been observed, and the man being a shoemaker I was assuming a great deal; I thought that this substance, as it looked like oxidized metal might perhaps have been a fragment from one of his hammers, but on the other hand the patient gives no history of any injury to the eye whatever; I was only sorry that I couldn't take it out and examine it. With regard to Dr. Borck's question, of course, if it was iron we might be able to draw it with a strong magnet, but it would have to be a very strong one.

Dr. Atwood.—It occurs to me, although I am not an oculist, that no foreign body of a metallic nature could possibly enter the anterior chamber without the patient's knowledge. The eye is an exceedingly sensitive organ. In all probability if it had impinged upon the

cornea and lacerated it he would have known it; it might have impinged upon and fastened itself in the cornea, setting up ulceration, and finally have penetrated into the anterior chamber. But it strikes me that the most plausible theory would be, that it is one of those parasites which inhabits the chambers of the eye and that it is not a foreign body introduced from without. If it were a parasite it might be heavier than the fluid in which it floats so that it would fall from one side to the other.

Dr. Alt.–I donot think it is any living thing, at least no living foreign body. I am satisfied it is metallic; the man is evidently not reliable for he told me that he did not see any one else, and he told me that he did not know of the existence of this substance; when in fact other physicians must have told him of it. I saw the patient several times and he was also seen by several colleagues of mine who happened to be present when he called; Dr. Baumgarten saw him one day.

Dr. Pollak.—What was its shape?

Dr. Alt.—Round—not perfectly so, however.

Dr. Williams.—When the man first came to me I did not tell him there was such a thing in his eye, but requested him to let me see him occasionally so that I might observe it. Later I saw his daughter in his absence and also told his son the nature of his trouble and requested them to have him come in occasionally, so I could see what progress it made. Dr. Atwood has suggested the idea that occurred to me when I first saw him,that it was some kind of parasite growing there. I am not satisfied that it is metal; furthermore I do not think a magnet would influence this substance through the cornea even if it was metal.

Dr. Rumbold.—Oh, yes, it would; if it is iron it would; if it is lead, or brass or copper it would not.

Dr. Pollak.—It wouldn't even influence it if it were iron.

Dr. Mulhall.—I will report a case. A little girl came to me suffering from purulent fetid discharge from one nostril from which she had suffered five years. I simply state the case to show the carelessness with which physicians examine in cases of discharge from the nose. The mother told me that not a single one of the former attendants had taken the trouble to wash the nose or taken a probe and examined the nose properly; they had ordered various lotions, codliver oil, syrup and other medicaments. The child was in splendid health; I washed out the nostril thoroughly and took a probe and soon came in contact with a foreign body which was easily taken out with a pair of forceps and washed it carefully and found it to be a piece of cork. The foreign body lay in the inferior meatus, and it had produced the destruction of the inferior turbinated bone and septum and formed a kind of nest for itself, so that in using these various nasal douches it had not been brought down or dislodged. The child had suffered for five years with purulent discharges. Of course it got entirely well. My own impression at first was that the affection was a strumous disease of the nostril. This condition might have been obviated but for the carelessness of the attendants in examining the patient.

Dr. Rumbold.—While in one of the ophthalmic hospitals in Dublin I saw a physician transplant a piece of mucous membrane from the upper lip to the upper eyelid; he cut the piece out of the lip and put it on the everted eyelid. In the same case a piece was taken from the lower lip and put on the other eye. This operation had been performed some time before and it had adhered very nicely. The operation was performed for trichiasis. The piece of mucous membrane was placed inside the lid and it was stitched at each end. I saw in the same hospital quite a number of cases which had been operated upon in the same way and they were successful. This operation I believe was introduced by an Italian physician.

Dr. Laidley.—I don't understand the mechanism or philosophy of this operation. I would like to ask some one of the oculists or others present to give us some explanation as to how the cure of the trichiasis occurs?

Dr. Rumbold.—The eyelid was so much contracted as to bring the hairs in contact with the eyeball in such a manner as to give rise to irritation; to remedy that contraction a cut was made in the eyelid and a strip of mucous membrane, which is probably about one eighth of an inch wide and the full length of the eyelid, is put right into the cut. This prevents a cicatricial contraction from taking place. The flap adheres at each end; a stitch being placed at each end after the flap is put in; that was all; the pressure alone kept it in place, so it would not be washed out by the tears; the surgeons allowed the blood to flow, not being particular about stopping it. I saw quite a number of cases in which the results were very good.

Dr. Alt.—I would like to ask the Doctor whether they didn't cut the tarsal tissue?

Dr. Rumbold.—I cannot tell you really.

Dr. Alt.—Unless they did, I don't see what good the operation would do. If the skin of the lid is pulled upon the edge of the tarsal tissue, the cicatricial contraction of the conjunctiva would hardly be relieved by putting in a strip of mucous membrane, because the conjunctiva is firmly fastened down and if there were no tissue intervening between the so-called tarsal cartilage, I do not see how the operation would do any good.

Dr. Pollak.—I should think such a flap would shrink up too quickly.

Dr. Alt.—Such a flap can be very readily transplanted; it has been done quite successfully.

MISSISSIPPI VALLEY MEDICAL SOCIETY.

First Session.

Tuesday afternoon, September 23, 2:30 p. m. The President, Dr. B. M. Griffith, of Springfield, Ill., occupied the chair.

Prayer by Rev R. O. Post, of Springfield, Ill.

Address of Welcome.

BY JUDGE JAMES MATHENY OF SPRINGFIELD, ILL.

Gentlemen.—Since the politicians have discovered that Blaine and Cleveland both sent substitutes to the war, the substitute business has become exceedingly popular. I am to-day a substitute in the place of Gov. Hamilton, who ought to have welcomed you. I want you to understand that the substitute has become a position of honor, and I hope you will appreciate that a substitute has been appointed to welcome you. Your welcome will not be in high-sounding terms, but none the less hearty and sincere than if from the executive power. I assure you that I, on behalf of your medical brethren and the citizens of Springfield, extend to you a hearty welcome, individually and collectively—collectively because you are the representatives of the grandest of all professions. Without your aid, assistance and skill, the lawyer, mechanic and merchant is an unimportant factor in this world. Your profession is one to which all the world is indebted; and in my opinion a grand physician, a good physician—one who honors his place and dignifies his calling, one who has mastered the intricacy of the Science of Medicine—is the grandest human being on earth. I know of no vocation that scatters blessings on every hand as yours. We, as the people, look to you for aid. The mother, weeping over her infant, appeals to you; the father, trembling in the presence of his failing son, calls upon the physician for aid and, if the physician illustrates his high calling, there is no end to the goodness, gladness and sunshine that he can scatter throughout the earth.

The science of medicine is progressive. You are advancing in the grand march of intelligence. The mists of the past have been torn asunder, and your society has taken an advanced position, so far as the intellectual advancement of the age is concerned. Your warfare is an endless one. You are fighting the demon of disease and he is a foe that never surrenders. The soldier goes forth and conquers his foe, but your foe, the dread demon of disease and death, never surrenders. It is a warfare that never ends and never flags except as science progresses.

Gentlemen, I repeat again, we extend to you a hearty welcome, and trust that your stay here will be enjoyed and that each one of you may go home imbued with a brighter and higher conception of your position in life, and that you will be enabled to carry home intelligence that you otherwise would not have attained.

When your work is done may your return home be pleasant, and you may realize that

"'Tis sweet to hear the watch dog's honest bark
Bay deep-mouthed welcome as we draw near home;
'Tis sweeter still to know there's an eye will mark
Our coming, and grow brighter as we come."

Response by Dr. Eastman of Indiana.

Mr. President and Your Honor of the Legal Profession: I, too, am a substitute, called upon in the place of one whom it would have been a pleasure to hear.

I thank you for your welcome, on behalf of my profession and brethren who are assembled here in your flourishing city which. I am reminded by the splendid portraits on either hand, was the home of men not only high in the council of the nation, but honored over the civilized world and of one of whom it was said a fitting memorial would be, "He never erred except on the side of mercy."

This Society is, as you are aware, the outgrowth of the Tri-State Medical Society of Illinois, Indiana, and Kentucky. These States are proud of names of men in the medical profession, known over the entire world for their lifelong labors in the cause of humanity. Illinois has her Brainard and her Davis; Indiana her Todd and her Parvin; Kentucky her Yanells and her McDowell—the latter, in 1809, at Danville, Kentucky, was first to remove an ovarian tumor, thus establishing an operation by which hundreds of

years have been added to human life, and untold suffering relieved, as it was the dawn of this brilliant noonday of abdominal surgery. Women, by this operation he instituted, are now rescued from what seems inevitable and almost immediate death. By this operation, says Oliver Wendell Holmes, "the surgeon carries the lamp of life and light into the shades of impending gloom—the message of hope into the dark, dark realm of despair, and gives life in the place of ashes for which the inevitable urn seemed already waiting." These States have other men, the Mississippi Valley has other men, who have in the past, or are in the present, inscribing their names high on the tablets of fame and honor, willing to sacrifice their lives, if need be, in the cause of humanity. Our Tri-State Society, knowing that it had true medical religion, because it "loved the brethren," reached out its arm and now encompasses the entire Mississippi Valley. The more frequent gatherings of members of our profession are but the outgrowth of the progress in every department of science and art. These meetings are typical of that silent yet potential force which underlies the spirit of our civilization and leads us irresistibly onward in the great march of progression, proclaiming to the world that the great battles are not now all fought under the banner so emblematical of the ravages of war, seen in your Memorial Hall in this building, but that they are often along the pathways of peace. In the fierce but silent conflict with disease and death we meet to better equip ourselves, that we may more successfully engage in these heroic struggles. In our meetings, we endeavor to be actuated by motives higher—infinitely higher than a personal advancement or private ambition. We bring thither the tithes of our experience that they may be tested in the crucible of truth, and if among the dross there is an atom of gold, we ask no letters' patent for the same but place it on the common altar of our Godlike calling, that it may bless mankind. We hope by exchanging views in our discussion, to increase our strength and to go from here, feeling that it is good that we have met.

Again, on behalf of this, the Mississippi Valley Medical Society, I thank you and the citizens of this beautiful city you represent, for your cordial and kindly welcome.

BOOK NOTICES.

Circulars of Information of the Bureau of Education:

No. 2, 1884. The Teaching, Practice, and Literature of Shorthand. By Julius Ensign Rockwell, Stenographer, Government Printing office.

No. 4, 1884. Proceedings of the Department of Superintendence of the National Educational Association at its meeting at Washington, Feb. 12-14, 1884.

No. 5, 1884. Suggestions respecting the Educational Exhibit at the World's Industrial and Cotton Centennial Exposition.

A Compend of Organic and Medical Chemistry, Including Urinary Analysis and the Examination of Water and Food. By Henry Leffmann, M. D., D. D. S. Philadelphia, F. Blakiston, Son & Co.

This work of Dr. Leffmann's reviews the organic compounds of chemistry somewhat systematically as the title indicates, and in this respect differs materially from the general run of medical chemistries. We cannot but think that an insight into the general classification of substances organic is very important to our medical students who are expected to deal so much with them in practice. The title has however been chosen a bit too comprehensive in including examination of food and even water and, as was our apprehension, but meagre justice has been done these departments. They would have been better excluded from the title at any rate to avoid misunderstanding.

The introduction into organic chemistry is good with the exception of what is said under the heading "So Called-Natural Changes," which might be improved. A most remarkable statement may be found on page 15, viz, that olefiant gas on being agitated with water for a long time produces alcohol. This interesting reaction we fail to find in any work, and presume therefore that it is one of the author's own. The world will be delighted to hear about it, we are sure. The classification and enumeration of the organic compounds has been very well done indeed and this part of the book will prove itself a valuable aid to the medical student.

The chapter on "Biological Chemistry" is fairly well done. Under the heading "Sweat" we should like to have seen butyric acid mentioned as one of the important compounds of that excretion. The analysis of urine fails to mention Fehling's test for sugar, and the chapter on quantitative analysis of urine gives no method at all for its determination. This of course is a defect.

The book we consider in fine well adapted for the want of the medical student but would recommend careful revision in case of a second edition.

BOOKS AND PAMPHLETS RECEIVED.

Diseases of the Œsophagus, Nose and Naso-Pharynx, being Volume II of "A Manual

of Diseases of Throat and Nose including the Pharynx, Larynx, Trachea, Œsophagus, Nose and Naso-Pharynx. By Morell Mackenzie, M. D., Lond. August Number, Wood's Library of Standard Medical Authors. Wm. Wood & Co., New York.

HOOPER'S PHYSICIANS' VADE MECUM. A Manual of the Principles and Practice of Physic with an outline of General Pathology, Therapeutics and Hygiene. Tenth Edition. Revised by Wm. Augustus Grey, M. B. and John Harley, M. D., London. June number of Wood's Library of Standard Medical Authors. Wm. Wood & Co., New York.

ITEMS.

—The following is the way they do things in France: M. Dargent, a referendary of one of the courts, was the father of a two-year-old child which fell sick. Dr. Dujardin-Beaumetz was called, and prescribed tincture of aconite and suppositories of muriate of quinia. The prescriptions were filled at the Pharmacy Petit, in the Rue Favart, and were put up by a student (apprentice) named Courty. Before the medicine was ready the child grew better, and the remedies were not used, but put away in a drawer. The baby suffered a relapse, however, and the distinguished pathologist being again called, directed the employment of the remedies always prescribed. His orders were obeyed, but in a few hours afterward the patient died in horrible agony (l'enfant mourait en proie a d'horribles douleurs). An autopsy was had, and demonstrated that the baby had been poisoned, the supposition being that the suppositories of quinine had been replaced by those of morphine.

The prescription clerk, Courty, was cited before the Correctional Tribunal of the Seine, and his master, M. Petit, was indicted as accessory. The investigation left no doubt that the infant had been poisoned, and the court was convinced that morphia was the lethal agent, though it was not actually found in the body. Courty was condemned to pay a fine of 300 francs and to suffer one month's imprisonment, and M. Petit, the owner of the shop, was adjudged amenable to civil damages. Had the same thing occurred in this country, in any state in the Union, if the matter ever went beyond a coroner's inquest, the verdict would have been, nobody to blame. The clerk's attorney would have found a dozen loophopes of escape for his client. It will be interesting to note what "civil damages" in the way of pecuniary compensation will be allowed the referendary for the loss of his baby.—National Druggist.

—CONTRA-INDICATIONS IN THE USE OF QUININE.—From the result of clinical observations Dr. Rabuteau cautions in Allgemeine Medicinische Central Zeitung, against the simultaneous administration of the iodide of potassium and the sulphate of quinine. He has noticed that when these are given in combination they cause pain in the stomach, nausea and vomiting. These symptoms, he believes, to be due to the liberation of pure iodine in the stomach. He declares that quinine is contra-indicated in women during menstruation. He cites instances in which women who are able to take quinine in the intervals between their menses are unable to do so during menstruation, because of the intense hypogastric pain which invariably follows its use.—Therapeutical Gazette.

—An English experimentalist finds that for every pound of mineral matter assimilated by a plant an average of 2,000 pounds of water is absorbed. At the French observatory at Mont Sowris it was found that in rich soil 7227 pounds of water passed through the roots of the wheat plants for every pound of grain produced whilst in a very poor soil 2,693 pounds of water passed through the wheat roots for each pound of grain matured.

DEATHS IN ST. LOUIS FOR THE WEEK ENDING OCTOBER 4, 1884.

Small-pox		Convulsions and trismus	11
Measles		Heat stroke	
Scarlatina	2	Apoplexy	1
Diphtheria	5	Other diseases of the brain and nervous system	12
Membranous croup	1	Cirrhosis of liver and hepatitis	6
Whooping cough		Enteritis, gastro-enteritis, peritonitis and gastritis	7
Typhoid fever	4	Bright's disease and nephritis	1
Cerebro-spinal fever		Other diseases urinary organs	
Remittent, Intermittent, Typho-malarial, congestive and simple continued fevers	11	Diseases generative organs	
Puerperal fever		Diseases of the locomotory organs	1
Diarrhœl Diseases.		Diseases of the integument	
Under 5 years	9	Accidents of pregnancy and childbirth	
Other ages	4	Congenital debility, malformation, etc	7
Erysipelas		Senility	3
Pyæmia and Scpticæmia	1	Surgical operations	1
Syphilis		Deaths by suicide	1
Inanition, want of breast milk, etc	5	Deaths by homicide	8
Alcoholism	1	Deaths by accident	
Other zymotic diseases		Execution by warrant of law	
Rheumatism and gout		Unknown	
Cancer and malignant tumor	1	*Total Deaths from all Causes*	138
Phthisis and tuberculosis Pulmon	10	*Total zymotic Diseases*	44
Marasmus—Tabes mesenterica and scrofula	5	*Total Consitutional Diseases*	18
Hydrocephalus, tubercular meningitis, etc	1	*Total Local Diseases*	56
Other constitutional diseases	1	*Total Developmental Diseases*	10
Bronchitis	3	*Deaths by Violence*	10
Pneumonia	2	*Unknown*	
Other diseases respiratory organs	5		
Diseases of the circulatory system	3		
Meningitis and encephalitis	4		

GIB. W. CARSON, M. D.,
Clerk of Health Commissioner and Board of Health.

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AMERICAN PUBLIC HEALTH ASSOCIATION.—The meeting of this body is largely attended, and we learn that a greater interest is manifested than at most previous meetings. At any rate a larger number of papers are presented, and it is .hard and continuous work for the members to get through the programme in the limited time.

The intention on our part to publish a daily report of the proceedings had to be abandoned on account of the late hour to which the evening sessions are prolonged, and the difficulty of obtaining the papers.

We publish, however, in this number an exhaustive report of the sessions of Tuesday and Wednesday; the proceedings of Thursday and Friday follow next week.

We beg leave to call especial attention to the masterly address of President Gihon, which we give in full.

The interest shown in the work of the Association is proven by the complete reports given in the daily papers, which we have found expedient to make use of in making up our report.

SYPHILIS HEREDITARIA TARDA.—In France Fournier is the chief representative of those assuming the possibility of a late development of true hereditary syphilis. He holds that hereditary syphilis may first become manifest from 4 to 28 years after birth. As evidences of such late hereditary lues he regards the so-called Hutchinson's alterations of the teeth (erosions of the teeth, microdontism, amorphous condition of the teeth,vulnerability of the same, etc.,) together with specific lesions of the iris and cornea and, in third order, specific aural trouble in children of more advanced age and in young individuals beyond childhood. Barthélemy in the Archives générales de Médicine, June, 1884, expresses his conviction of the truth of Fournier's views and cites in support that certain syphilitic alterations of the liver are found now and then in juveniles. He bases his observation on the examination of 32 cases, being children from 2 to 13 years of age. He describes the following four forms of lesion:

1. Congestive form, characterized by tumefaction and tenderness over the liver, and slight jaundice. This form is amenable to anti-syphilitic treatment.

2. Diffuse, interstitial hepatitis; shown by great tenderness and considerable enlargement of the liver, severe intestinal disturbance, ascites, icterus and emaciation. This form may, when taken at its incipiency, yield to specific treatment.

3. Gummous hepatitis. In this form there is generally combined disease of liver and spleen and frequently of the lungs; generally no icterus or ascites; prognosis exceedingly unfavorable.

4. Amyloid degeneration. This is the gravest lesion. As further modifications B. mentions sclero-gummous forms of hepatitis.

Based on these observations B. is of the opinion that pathological changes in the liver at the periods of life alluded to are usually found to be the result of a hereditary form of syphilis of late development.

REMOVAL OF THE UTERINE APPENDAGES.—In the course of a lecture delivered at the Jefferson Medical College Hospital, reported for the Medical News, Mr. Lawson Tait reviews some of the practices of his "specialist" brethren in the following frank terms:

"When a woman enters my consulting-room, and I see acne, I always ask if she has

been taking bromide of potassium. This is the fashionable drug for every conceivable uterine ailment, and yet I have never heard of any one who was willing to swear that he had ever cured anything with bromide of potassium which was worth curing. Still it is the one pump-handle which we have, and we work it pretty hard. When a woman comes to me, with a yellowish-purplish face, covered with acne, I always ask if she has been taking bromide,and as a rule she says that she has taken large quantities of it; and, looking over her prescriptions, I find that she has been taking bromide of potassium, bromide of sodium, bromide of ammonium, and the last one I heard of is bromide of nickel. These women wander from one physician to another. She, after a time, falls into the hands of one who puts in a pessary—for what, goodness knows. I saw a lady not many years ago from whom I removed both Fallopian tubes filled with pus, which had been there clearly from a miscarriage which she had had many years previously. Among other ways, she had been treated largely with pessaries. She had a large tray filled with pessaries, which she kept as a sort of curiosity. She had each pessary labeled; and she would pick up one and say, "This was given to me by Dr. A. It hurt me a great deal, but I bore it for some months." Taking up another, "This I got from Dr. B. It hurt me so much that I could not wear it long." Taking up a third, "Well, I believe that this one was invented by the devil himself. I could not wear it at all." These patients wander about from one specialist to another, getting from each one his pet pessary. Finally they go to a surgeon, who dilates the cervix with some contrivance, or he will divide the cervix in one way or another without giving any benefit. Then, after going for a long time from one doctor to another, she at last goes to a surgeon who has a reputation for performing operations. I do not mean to say that all these women who wander from one consulting-room or one hospital to another should be submitted to operation. I have never said this and never carried it out in my practice. What I do say is this, there are a large number of these patients which can be cured only by a surgical operation. Because at the outset of this new kind of work some mistakes are made, we are not therefore to close the door against suffering women. Given the history of a woman who has wandered about as I have described in a somewhat exaggerated form, but none the less true, who has been subjected to every conceivable method of treatment, and she comes to you, and you are persuaded that her sufferings are real and not imaginary, you are justified, in my opinion, in making a small incision in the front of the abdomen to examine the belly, and to pass the fingers down into the pelvis to see if there is anything wrong there."

Then continuing he speaks regarding the grave responsibility involved and the manner in which an understanding should be brought about between patient and physician, and does not forget to refer to certain invidious criticism:

"The first question is clearly, How do you recognize the fact that the patient's sufferings are real? I cannot answer that question. All that I can say is, that never in my experience have I had a woman submit to the operation without finding sufficient cause to justify it. Of course, I, as all ought to do, place my statement and views, with what I propose to do and the results of the operation, immediate and prospective, clearly before the patient, and, as I say I have never known a woman to submit herself to the operation without finding sufficient cause to justify its being done. You say that this puts the responsibility on the patient. Well, that is what we do in every case. The patient cannot be relieved of all responsibility. A man comes to you with a diseased knee-joint. You lay before him the advantages and disadvantages of excision and of amputation, and then you ask him, 'Will you have your limb amputated, or will you run the risks of excision?' There are few cases in which we can relieve the patient of all responsibility, and in these doubtful cases the patient must take a large share of the responsibility. In these cases I always

say 'Let us have a complete consultation with any one, or any number of your previous attendants. I will not take the responsibility of this operation without consultation with some one who is as responsible as I am.' Having placed the matter thus before the patient she must take her share of the responsibility.

"It is perfectly impossible to imagine that in these cases there is any ground for the criticism which has been made, that women are having their uterine appendages removed for improper purposes. It would be impossible for this to be done without the matter being discovered. The proposal to remove the uterine appendages in order to prevent pregnancy has been made to me by women, but surely we have some kind of conscience. I do not suppose that because I have obtianed a position of some eminence in this kind of work that I have been robbed of the conscience which I once possessed. When I say an operation is to be performed,it is done in a sort of semi-public manner. So far as I know, in English surgery, this charge has never been substantiated—indeed, it is never publicly made, it is only hinted at behind our backs.

"Again,we are told that these operations are sometimes done for another kind of immoral purpose, i. e., for the purpose of obtaining the fee which comes at the end of the proceeding. Well, this is rather a dangerous argument to use, because, if it were used against myself, I should at one publish a list of the men who had given bromides, used pessaries, and divided the cervix, and ask how about their treatment in regard to the matter of fees. I do not know that they would come off as well as I should."

Stenosis Not the Factor Causing Pain in Dysmenorrhœa.—In the section of Obstetric Médicine of the British Medical Association, Dr. J. E. Burton gave an account of a certain number of observations made with a view of testing the accuracy of a widely fostered opinon that dysmenorrhœa is frequently the result of closure of some part of the cervical canal. Before beginning his observations he felt ready to adopt the widespread opinion that the dysmenorrhæa was the result of stenosis. He consequently utilized his position as surgeon to the Hospital for Women in Liverpool to determine the question. We are told that for several months he directed all patients so affected to afford him an examination during the paroxysms. We are somewhat astonished at the small number of observations associated with such a field of labor. The whole number examined and forming the basis of observation amounted to only six, but he says that the condition met with was so uniform and so marked that he does not hesitate to put forth the observation against any theories whatsoever.

"From various causes, he says, observation was difficult; some could not or would not let me know in time, and some had already had bougies passed before I could examine them. In all those I did examine, however, the condition was uniform. The spasm so often met with a day or two before the flow, and which renders the passage of the sound at this period difficult, or almost impossible, had entirely disappeared. So far from there being constriction or spasm at the external or internal os, there was actual dilation at these parts, and the canal was actually more patent from one end to the other than at any other period of the month. It is really easier to pass the sound at this time, notwithstanding pre-existent flexion and spasm, than at any other period. Even in those cases of limp anteflexion so carefully and well described by Dr. Hewitt, the menstrual congestion affects the uterine structures, and the uterus is no longer flabby and doubled up; but it straightens and stiffens itself out by virtue of congestion, and the canal becomes almost straight. The first case examined was one of this kind, and the sound was ordinarily very difficult to pass, the canal being much bent on itself; and when, on attempting to pass it during the height of the pain, I found it pass readily, I concluded that the condition must be exceptional. Subsequent examinations, however, convinced me that, so far from being excep-

tional, the change was one that took place in all cases. I need not trouble you with histories of all the cases; the history of one was the history of all, and I had to become convinced against my will that obstructive dysmenorrhœa, or spasmodic dysmenorrhœa of the kind now under discussion, in reality does not exist. Of course, membranous dysmenorrhœa is not included in these remarks."

By way of treatment he spoke highly of the tincture of iodine applied to the region of the sacrum.

Nitro-glycerine in "Tic."–Dr. Bramwell, of Perth Infirmary, claims to have been cured of an "epileptiform tic" by drop doses three times a day of 0.1 per cent solution of nitro-glycerine.

Cholera Pathology.—After the reading of Dr. Koch's paper before the Imperial Board of Health a discussion took place at which the following took part:

Privy Councillor Professor Bardeleben, Privy Councillor Professor Dr. von Bergmann, Generalarzt Dr. Coler, Privy Councillor Dr. Eulenberg, Dr. B. Fraenkel, Staff-Surgeon Dr. Gaffky, Privy Councillor Professor Dr. Hirsch, Privy Councillor Dr. Koch, Privy Councillor Professor Dr. Pistor, Generalarzt Dr. Schubert, Privy Councillor Dr. Skrzeczka, Privy Councillor Professor Dr. Virchow, and Regierungsrath Dr. Wolffhügel.

The following questions were proposed by Dr. Koch for discussion.

1. Is cholera produced by a specific infectious matter that only comes from India?

2. Is the infectious matter introduced only by the intercourse of human beings with one another?

3. What are the bearers of the infectious matter in foreign traffic—ships, goods, letters, people in good health, or people already infected?

4. What are the bearers of the infectious matter in ordinary traffic in places where cholera is prevailing—corpses of cholera-patients, effects of cholera-patients, linen, articles of food, drinking and household water, the air, or insects?

5. Is a direct transmission possible, or must the infectious matter pass through a kind of maturity, or change of generation in the soil, or anywhere else?

6. Is the infectious matter reproduced in human beings, or does this take place independently of human beings, in the soil, and do human beings, animals, etc., then serve only as bearers of infection?

7. Is the infectious matter contained in the dejecta, or eventually in the vomit, or is it to be found in the blood, urine, sweat or air for breathing?

8. Does the infectious matter possess a great capacity of resistance and permanency?

9. Is it destroyed in a short time by dessication?

10. Can the infectious matter reach the body by other ways than through the digestive canal?

11. Are special individual dispositions necessary to make it effective?

12. What is the length of duration of the incubation stage?

13. Does the fact of recovery from an attack of cholera afford immunity for a certain time?

14. Is the infectious matter of cholera identical with the comma-bacillus?

15. Can the mode of operation of the bacilli be looked upon as an intoxication?

16. Can the proof of the presence or absence of comma-bacilli be diagnostically turned to account?

Although the above questions evoked considerable comment, there seemed, as so far reported in the British Medical Journal, very little difference of opinion. Relative to its origin Virchow said that no discussion, in Germany, was necessary on the subject. In answer to the observations of Drs. Fraenkel and Pistor, that "the laboratories and arrangements necessary for the cultivation of the bacilli were far beyond the reach of most physicians and officials; and the difficulties in obtaining the patient's dejecta, and in making

necropsies in the country, were very great," Dr. Koch thought that the difficulties of the proceeding were overrated. The investigator had only to warm the gelatine, to mix it with a flake of mucus from the dejecta, and to pour it on the object-glass. The slide was then put under a glass receiver; or, if this were not at hand, it was laid between two plates. There could be no difficulty in obtaining dejecta. The flakes of mucus on a a shirt defiled with dejecta could be investigated. It was not necessary to have a special warming-apparatus for making the cultivations; the indoor temperature in summer was always sufficient. In cases of necessity, a fire might be lighted in the room.

The Significance of Powder Mark in a Case of Questionable Suicide or Homicide.—In a very valuable article on "The External Appearances of Pistol Shot Wounds," by D. B. N. Fisk, of Amherst, (Boston Med. and Surg. Jour.), the author discusses at length the varied appearances of bullet wounds under the manifold conditions which necessarily arise. He gives a more thorough explanation of the varied appearances of the wound of entrance and exit, than we had before seen, and shows that the difference in appearance between the entrance and exit wounds depends largely on the distance at which the shot is fired. The principal interest, however, of the paper lies in the peculiar mark which is left by the powder, in its varied conditions of non-ignition and partial and complete combustion. He finds that whenever the pistol is held at distances from four to fourteen inches, according to the size, and charge of the weapon, the exact direction, relative to the hammer, in which the pistol has been held can be ascertained by the powder mark which surrounds the bullet-hole. It will readily be seen that this question is one of considerable importance in determining a question of probable suicide or homicide, as it would be absolutely impossible for an individual to hold a pistol in certain positions in order to shoot himself. In summing up the part of his subject which refers to smutting or powder burning, Dr. F. says:

I offer you, then, what I believe to be a new and almost infallible rule for determining the position of the weapon:—

Whenever this burned, or burned and smutted, spot is found, either upon the skin, the hair, or the clothing, at one side of the wound made by the bullet, by placing the muzzle of weapon upon the wound so that the line of the hammer and sight will meet a line drawn from the centre of the wound through the centre of the spot of burning, or of burning and smutting, you will have the exact position of the weapon when it was fired. By position of the weapon, I do not mean the distance at which it was fired, nor its angle to the body; the latter does not seem to modify the rule I have given. As some revolvers of large calibre and short barrel will sometimes produce the greatest smutting opposite the point of greatest burning, the latter must be understood in such cases as the spot to which this rule is to be applied.

After discussing these marks at length Dr. F. thus gives his summary relative to distance, position of weapon, accidental wounds, homicidal wounds and suicidal wounds.

Distance. 1. From a great distance the entrance wound will usually be large and irregular; there will be absence of any great degree of lividity of its edges, and absence of the marks of powder. The wound of exit, if one is present, will usually be larger than the wound of entrance. At any distance the edges of wounds of entrance will usually be inverted, those of exit averted.

2. From a short distance the entrance and exit wounds will generally be nearly equal in size; the edges of the former will be blackened, and powder grains will be imbedded in the skin, but there will be absence of the scorchings and brandings of powder.

3. Close to the body the entrance wound will generally be larger than the exit. There will often be, in addition to the tattooing of the skin by unburned grains of powder, a mark or brand made by the flame of the gases and of the burning powder, by the soot of

the partly burned powder, and by the residue or ash of the wholly burned powder. As a rule this brand, which may consist of a burning alone of the hair, the skin, or the clothing, or of a burning and blackening of the skin or clothing, will appear at one side of the bullet-hole.

The position of the weapon (and whenever this term is used I wish to be understood to mean not its angle to or distance from the body, but the manner or position in which it is held, that is, whether it is held with its hammer and sight above the barrel, as in the usual position for firing, or with the hammer and sight below the barrel, as when the weapon is turned upside down, or in any other position of the hammer and sight relative to the barrel of the weapon) the position of the weapon is to be determined by the following rule: When the brand appears upon the hair, the skin or the clothing at one side of the bullet hole, hold the weapon with its muzzle to the bullet hole so that the line of its hammer and sight will meet a line draw from the center of the bullet hole through the center of the brand, and it will show the exact position of the weapon when fired.

This rule is deduced from the newly-discovered fact that, owing to the recoil of the muzzle of the weapon in the direction of its sight, this brand, when it appears at one side of the bullet hole, will appear upon that side which corresponds to the side of the hammer and sight in their position relative to the bore or barrel of the weapon. That is if the weapon is held upside down the brand will appear below the bullet hole.

Accidental wounds are generally near wounds. When inflicted from a distance they cannot be distinguished from homicidal wounds. In shots fired near by, when a person is known to have been shot while standing, an unnatural position of the weapon, as shown by the location of the brand, will tend to corroborate a claim of accidental shooting. So, if one is known to have shot himself, an unnatural position of the weapon will show that the shot was probably accidental. The location of the wound and the course taken by the ball may also characterize the wound as accidental.

Homicidal wounds inflicted within the suicide limit have heretofore been distinguished from suicidal wounds alone by the location of the wound and by the uncertain evidence presented by the trajectory of the ball. When the location of the wound has been such that a person might easily have inflicted it upon himself, there have been no means of determining from its character whether it was homicidal or suicidal. To aid in distinguishing between such wounds I offer the following rule: When the location of the brand, relative to the bullet hole, shows that the weapon has been held in a position of its hammer and sight impossible or improbable for a suicide, it is probable that a murder has been committed. Certain relative locations of this brand may also indicate that the victim has been shot while in a reclining position.

Multiple wounds are usually homicidal, but may be either accidental or suicidal.

Shots fired beyond the usual suicide limit are probably homicidal.

Suicidal wounds. It is said that the suicide rarely holds the muzzle of his pistol at more than eight inches from the body. Suicides generally fire at the side or front of the head, next at the heart; they sometimes fire at the back of the head.

The distance from the body at which the weapon must be held to show the brand plainly is probably very nearly as follows: for small pistols and revolvers not over four to six inches; for large weapons of this class not over twelve to fourteen inches.

Management of New-Born Infants.—The Medical World says: In the management of the new-born infant we are gradually approaching nature's methods. In the maternity department of the Woman's Hospital in Philadelphia the management of new-born babes has been as follows. As soon as the head is born the eyes are washed with an antiseptic solution- When the body is born the child is left in the bed to await the expulsion of the placenta. No effort is made

to remove the placenta under half or three-quarters of an hour; before this time it is generally expelled by nature. When the placenta is expelled it is placed in a pan, and the child is wrapped up and laid away with the placenta still attached. The child is now left and the attention is given to the mother. After the mother is properly cared for, the child receives attention. By this time the pulsations in the cord have long since ceased. The cord is now cut and the blood is "stripped" out of the stump, but neither end is ligated. The stump is not dressed, nor is any band put around the child's body. The child is neither washed nor dressed, only a diaper and a simple "slip" or gown is put on, and then it is warmly wrapped up and put in a little bed to itself. After twenty-four hours it is taken to the baby's bathroom (which is properly heated) and there it is washed and dressed. Dr. Tyng, the physician in charge, tells us that since this plan has been adopted the babies get along much better. We were in the wards of this department about an hour, and during this time we did not hear a single cry from the babies. They all seemed contented and happy and were doing well. We are convinced that washing the child immediately after birth, and keeping it half-naked for a long time during the process of careful dressing, is not good practice.

Physiological Effects of Kairine.—We have had occasion before to speak with disapproval of the general effect of the drug, kairine, with which a good many of our confreres in the East and Europe have been trying to reduce the temperature of typhoid fever. The following from the Medical News, setting forth the physiological effects of kairine confirms our previous impression. We are glad to publish it in order to show how desirable it is to make haste slowly in the adoption of new remedies to the exclusion or neglect of tried friends:

"The physiological action of kairine is not simply confined to lowering the temperature. The changes which gr. $\frac{1}{65}$ of kairine will cause in the blood are enormous. In his experiments. Morohovetz used kairine dissolved in a six per cent. solution of common salt, so as to avoid the action of distilled water on the red globules. The blood remained alkaline, but its color changed as soon as a more concentrated solution was used. A continuous current of air deprived of carbonic acid did not restore the red color of the arterial blood. The blood-spectrum was also changed by the concentration of the kairine, and contained four methæmoglobine lines, situated between the C and F lines.

Under the influence of kairine, the blood-globules formed roulettes, at the same time that the middle part protruded from one side to the other. The number of globules does not diminish. The blood of a dog which has taken kairine coagulates almost immediately after it comes out of the vessels. Under the influence of kairine, the red globules of the blood, while preserving their quantitative proportion, undergo a quantitative and qualitative change in regard to the coloring matter; the hæmoglobine is transformed into methæmoglobine, which is precipitated. The change in the color of the blood of a living animal by cyanosis gives a peculiar leaden appearance. The same thing was noticed by Golouboff after the administration of gr. xj of kairine.

The glandular organs are also influenced by kairine. The saliva and bile flow more abundantly after kairine is injected into the blood, or introduced into the duodenum. The bile is viscid and almost black. The pancreas and the kidneys are not influenced by kairine. It is eliminated by the kidneys, as shown by the action of fuming nitric acid on the urine; a bright reddish ring forms between the acid and urine—a ring which is characteristic of kairine in an aqueous solution. When bile is normally excreted, this ring takes the spectrum colors, and the urine gives the greenish color-reaction of biliverdine.

The modifications of respiration and circulation are more rapid and pronounced as the quantity of kairine is increased. The direct injection of it into the blood causes an in-

tense dyspnœa, accompanied by an elevation of arterial pressure in the carotid; this being followed by a diminished pressure, shortening of the pulse-waves, and filiform pulse. After the ingestion of gr. xxv, the heart of the animal was arrested, and it died of cardiac paralysis, the respiration continuing for some time, and being of a Cheyne-Stokes character. At the autopsy, the cavities of the heart were found dilated and filled with blood. The classic experiment on the frog (ligature of a limb), showed that kairine acted similarly to curare on the peripheral ends of the motor nerves.

In experiments on dogs, Morohovetz found no notable abatement of temperature. The experiments of Filehne have shown that, to obtain a notable abatement of temperature, it is necessary to inject kairine continually; less than gr. iv. produced no effect. But it is easy to exceed the required amount, and to throw the patient into such a state that his inspired oxygen is insufficient for his physiological necessities, as kairine deprives the hæmoglobine of a large quantity of its oxygen. Morohovetz terminates his paper by counselling great prudence in the administration of kairine; he considers pulmonary and cardiac affections, and anæmia as absolute contra-indications to the administration of kairine.

SOCIETY PROCEEDINGS.

PROCEEDINGS NINTH ANNUAL SESSION AMERICAN GYNECOLOGICAL SOCIETY.

HELD AT THE PALMER HOUSE, CHICAGO, ILL, SEPTEMBER 30.

Meeting was called to order by President Albert H Smith, of Philadelphia, after which Dr. W. H. Byford, of Chicago, delivered the following address:

Mr. President and Fellows of the American Gynecological Society:—In accordance with the request of the Committee of Arrangements, I greet you as guests of the Chicago Gynecological Society, and the general profession of this city. Many of the distinguished members of your society visit Chicago for the first time, others have honored us with their presence many times in the past. The former, however, are not strangers to us, because their good works in the profession have sent their fame before them. The latter are familiar to us in person as well as renown.

Your meeting here has been anticipated as an occasion of great pleasure as well as profit, and we desire to welcome you in such a manner as may make you feel entirely at home. We assure you that anything we can do to make your stay enjoyable will also give us pleasure, and, I doubt not that every citizen of Chicago whom you may meet will manifest the same desire.

Within the memory of many of you Chicago was but a village situated on the westtern border of civilization; now it is a city of marvelous growth, and occupies the centre of population of our great continent, and wields a vast influence in the commerce of the world. Although very different in many respects from the older cities familiar to you, you will find in it so much to interest you that we venture to hope you will be detained sight-seeing much beyond the time alloted to the scientific and business purposes of this meeting. The longer you remain with us the greater happiness we shall derive from your presence.

Since the organization of this society some of its most illustrious members have gone to reap the rewards of their benevolent, faithful and excellent labors. In the short time which has elapsed since we last met, our leader has fallen. He whose brilliant achievements have crowned him with a halo of glory such as seldom adorns the brow of mortal man has been called to his immortal heritage. The fame of J. Marion Sims will ever remain embalmed in the history of the profession he loved and served so well. His example has been a stimulus to great efforts in behalf of womankind. In the light of faith he is not lost to us, but stands on the beautiful shore beckoning us to immortal deeds. We cannot again feel the warm grasp of his hand, but we may follow in his footsteps.

In the presence of so large a number of the Fellows of this Society at this meeting, we see the promise of much good scientific work and delightful social enjoyment.

Again, allow me to welcome you individually to the hospitalities of Chicago. To each of you, we tender the freedom of the society.

"Moot Points in Regard to Inversion of the Uterus," was the title of a paper then read by Dr. J. C. Reeve, of Dayton, O.

The points were as follows:

1. Does inversion of the uterus ever occur independent of pregnancy or a polypus in the virgin organ?

2. Does inversion ever begin at the cervix and proceed from below upwards instead of by indentation of the fundus?

3. May not puerperal inversion occur at some considerable period after delivery?

4. May not inversion occur without any marked symptoms whatever to indicate the accident?

The points were supported by argument and reports of cases collected from medical literature. The author claimed that the last two were certainly of practical importance.

The following paper on "A Rare and Fatal Form of Sepsis without Symptoms," was read by Dr. George J. Englemann, of St. Louis:

Mr. President and Gentlemen:—It is important to observe carefully all the features of this disease, which appears in so many forms, although it is a fact there are smoothly running cases with little or no fever or pain, yet these are the ones that prove fatal. Text-books and the teachings in general do not call attention to this class of cases, perhaps for the reason it is difficult to describe a symptomless disease, fever and pain—symptoms that are most usually wanting. The danger is greater where symptoms are less, or absolutely wanting. There needs be no elevation of temperature, no depression of the vital powers, no profuse sweats, no elevation of pulse, no intestinal bronchial catarrh. It may be an acute affection. Rarely are all symptoms wanting in one and the same case; but may be. We sometimes find a slight diarrhœa associated with this bronchial catarrh, but no elevation of temperature; perhaps, one or a half degree. Bowels may be normal. In some instances where other symptoms are wanting, I find the pulse 120 or 140, feeble—no puerperal septicemia. I take exception here to that unimpeachable authority, our absent friend, Dr. Barker, who says in his work on "Puerperal Diseases": "Symptoms will vary according to the amount of poison absorbed, and the consequent intensity of the disease." Again, he says, "the elevation of temperature is shown by the thermometer as a constant symptom, and measures to a certain extent the intensity of the poison. This very symptom is usually the one that is most wanting in the cases I have referred to. For this form of disease I must make a statement contradictory to that of Dr. Barker, because I say cases are typical of this form of septic poison. I do not state this as my own personal view of the case or symptoms. It was my good fortune to be called in consultation with an excellent gentleman whose reputation is well known all over the country, and in every instance was my diagnosis of septic poisoning denied, and even the existence of fever was doubted. The cases have been witnessed in consultation with able practitioners; hence, it is not my personal view of the case, but it is the result of careful examination by others besides myself. I may have overlooked a good many symptoms, but it was not my own diagnosis, merely a view of the case as given by others.

Case I was an old gentleman with enlarged prostate who had been enjoying good health heretofore, and was unable to pass urine. An impetus was given; had for a few days little discomfort; a trifling elevation of temperature. Being unable to pass water, catheter had to be used. This was the first case which called my attention to septic poisoning. He was an irrelevant among strangers, but in the hands of the ablest men. There was a careful examination made twice a day, but could see no symptom of disease of any kind. The catheter was passed easily; urine was clear; there was no tenderness or pain, not even local, at the prostate. I saw that he was slowly sinking, and I repeatedly called the attention of gentlemen to the case. They ridiculed my anxiety but examined him carefully; pulse and temperature taken twice a day; bodily examinations were made, and he seemed to be growing more and more feeble, and nothing could we find until he became comatose, when he passed away in the course of six or eight hours. I thought there must have been an error in diagnosis, and determined to make a post-mortem, which was desired on the part of the other physicians. They were entirely in the dark. One kidney was floating in a large sac of pus, and an immense abscess which seems to have followed secondarily from a few small foci about the size of a pin in the prostate gland. One ureter lay in a sac of pus, and the very serious condition of the patient did not produce any symptoms upon the pulse or temperature. During the last few days there was a little diarrhœa—nothing marked, any more than might occur in any case. It was a septic diarrhœa.

Case II was one in which the child died of septic poisoning accompanying diphtheria, an was one of the several which I have seen precisely alike. The child was ill for a few days, then a fever set in, not very severe, with diphtheritic deposits of the uvula appeared.

When I saw the child it was playing in bed, feeling well, showing no signs of fever. I at once had a feeling of pity at seeing the

child so healthy-looking, but doomed. I warned the mother of the case, and was told in a few weeks afterward that the child had died. There was no elevation of temperature; fair pulse; child was playful, but afterwards was failing slowly without any apparent symptoms, and fever set in about two days before its death, which became very violent. For some weeks septicemia progressed in the body without producing any symptoms; at least, so far as I can understand from the physicians. I did not see it myself. From the position that they assumed, it was evident that the child was out of danger.

Case III was one of puerperal septicemia; primipara, healthy young woman of 23, delivered with some difficulty of a child of one week's presentation. There was also some difficulty encountered in removing placenta; perineum lacerated, and an immediate operation performed; antiseptic injections were administered at once; applied carbolic acid to the uterus, and iodoform dressing to the perineum; pulse 104, temperature 98. I saw temperature achieve 103.2° with a pulse of 140; pain in the abdomen, but these symptoms soon subsided. Were very violent for one day, after which subsided; no more pain, abdomen not sensitive; temperature 98.5 to 99.6. She expressed herself as doing well, but the abdomen was largely distended. For a few days she continued in this condition, beginning to eat again; stomach improving, and especially feeling well. Then she began to vomit fecal matter, became delirious and died. No post-mortem was permitted; but it was found necessary to open abdomen. A very large quantity of yellow matter is claimed to have been removed from the abdomen.

It appears that this condition was inaugurated after fever, elevation of pulse and pain had all subsided. Another case of septicemia passed unnoticed by a very able physician. The case continued for three or four months unobserved. It was in consequence of a fibroid of the uterus—a simple one about the size of a hen's egg in a virgin lady of 56. It is not necessary to refer to the symptoms and bleeding of the fibroid. She had gushes of a purulent mass, foul fluid of a brownish color, with very black shreds from the uterus. They were looked upon by a lady practitioner, who had temporarily attended her, as a form of menstruation. I saw one of these gushes, it was a pint or more of the most offensive fluid possible with shreds and tissues. Subsequent to the discharge her pulse was 80; temperature 99°. I used antiseptic injections into the uterine cavity twice a day, and after making these injections. I gave her quinine in large doses, and conditions gradually changed. I told the family and physician upon the first examination that the patient was suffering from septicemia. I continued careful treatment; removed local appearances; discharge became purulent; and had almost ceased. She felt better, and, as they presumed, was on the high-road to recovery. Presuming that she was well, they made plans for a trip to some summer resort. She was in this condition with pulse about normal, as well as temperature. I saw her first on the 18th of May. June 1st I ceased all injections of antiseptics, salycilic acid, quinine, etc. The next day it seemed as if the disease had been held and then broken forth. The local conditions continued to be fair. There was very little discharge of pus. A few hours having elapsed the pulse arose to 120, and temperature 104°; symtoms again subsided and patient continued in a remarkable way. Pulse went down from 120, 116, 108, 104; temperature 98°, then continued with a temperature of 97.6°, 97.8°; pulse 98° and 97°. The only peculiar symptom was the excellent sleep she enjoyed at nights. She was wide awake when awake—not in a comatose state at all. Pulse was now about 98 to 99, but she gradually seemed to fail without any further symptoms; no more tenderness of the abdomen; no bronchial or cerebral symptoms; body grew colder; temperature went down from 96.8 to 96.6; measured in the rectum for one minute 95.6 with pulse gradually rising. It was only within the last four or five days that the temperature again sank to 97.6°. In connection with this case was one of the ablest practitioners of the country—Dr. J. B. Johnson. They were unwilling to admit the presence of fever of any kind. Patient was slowly sinking, growing weaker, without delirium or any marked symptoms. There was a diarrhœa when pulse was low and temperature rising. In another case a patient suffered long from uterine trouble, and had pelvic cellulitis. When I returned I found her in the hands of one of our oldest practitioners, and seeing her for the first time, I insisted on the presence of septicemia. He did not think of fever. Pulse was little rapid; temperature about normal; no pain in the abdominal region; no sensitiveness which I have noticed in others of like complaint. She was somewhat astonished at the dryness of her throat; had no fever, and spoke especially of her feeling well. I believe there are many cases of this kind of disease, which I think deserve either special notice or a special classification. It is

so entirely at variance with the generally accepted doctrine of septic poisoning, or pyemia, and such cases are extremely deceptive, to say the least. In every one of these cases practitioners of the highest standing have examined them, and yet unaware of the existence of septic poisoning. I wish especially to bring before the Society the experience of those who have undoubtedly observed many of these cases from time to time. The accumulation of evidence and experience will certainly strengthen my statements.

DISCUSSION.

DR. RICHARDSON.—Cases of this kind have come under my observation, and the only particular symptom was a little diarrhœa. The most remarkable symptom of the patient was that of her mental condition. She always felt well, or as she expresses it, "splendid."-Temperature was about normal, slight variation some days.

DR. REAMY.—I have met with such cases as have been referred to, and the more notable symptoms were absence of pain, no elevation of temperature; in some cases no elevation of pulse. Another symptom that struck me forcibly was the mental anxiety on the part of the patient. There is a physiognomy about these puerperal diseases which is difficult to define. The patient always appears to be doing well. Indeed, in any class of cases of these different forms of puerperal fever, I think my statements will be corroborated by a large number of the profession, where I say absence of pain is found; in fact, absence of any symptom except diarrhœa. It is a signal, so to speak, to the experienced practitioner that such cases will sooner or later terminate fatally. Some writer referred at length to cases of this kind in the American Journal of Obstetrics some five years ago. He claimed there was no apparent danger associated with such diseases. There are several cases, probably, closely allied to each other, but they are deceptive both as regards their etiology and pathology.

DR. JOHNSON.—I can but indorse the views advocated and maintained by Dr. Engelmann in his valuable paper. I would also say that I have seen children die under such conditions with paralysis of the heart.

DR. ENGELMANN.—I am pleased to hear other members recite their experience, and I must confess that Dr. Richardson agrees and concurs so thoroughly with my own observations, that it really appears to me there are others who have observed it closely in cases of this kind. The disease is sometimes attributed to other causes, and is very different from the real picture which has been drawn of it. There is no mistake but that these cases invariably end fatally. Cases of septicemia have been reported of a violent character, where patients have gradually sunk and passed away from us. I would also remark that this diarrhœa is the one most common symptom in connection with this form of disease, but it was not a septic diarrhœa. We should not accept in all cases a patient's feeling well as a means symptomatic of her physical condition. Disease of this kind is, as I have said before, difficult to place or define. It is our duty as members of the American Gynecological Society to formulate, if possible, the symptoms and recognize the true disease. It is more by intuition than by scientific diagnosis that we can arrive at a correct idea of the condition.

DISCUSSION ON

Paper "Abdominal Section; its Range and Application," by Dr. C. D. Palmer of Cincinnati.

DR. ENGELMANN.—Mr. President, I would like to make a few remarks, which I believe will be of importance with regard to exploratory incision. In this country it is practiced to a large extent as a means of diagnosis. I do not think, however, that it is intended strictly as a means of diagnosis, for we should regard percussion or the bimanual examination. But when an exploratory incision is made, we have arrived at a pretty fair conclusion in a great many cases, and are prepared to operate, guarding against the possibility of closing up the incision; that is, if circumstances are favorable for the completion of the operation. I believe this is pretty much the feeling with which every abdominal section is entered—if circumstances are not favorable close the incision at once. I do firmly believe that exploratory incision is not as dangerous as tapping. I have in three cases made such an exploratory incision, but much against my will. I intended to operate but found the condition of the patient unfavorable, and was compelled to close the incision at once. These were cases of uterine cancer. I made up my mind to remove the uterus by the abdominal method. Condition seemed favorable. The uterus would freely move and was apparently favorable for operation; but in opening the abdomen in one instance the omentum was already beginning to be diseased, but not sufficiently so to fall through the abdominal walls to prevent any contingency arising in the intestines. I believe we should all rely upon the exploratory incision; at least, in cases which demand operation, and we are not certain as to diagnosis. We may enter upon the operation, but cease at the proper moment, if conditions are

not favorable, and it seems to be less dangerous than tapping. Certainly, the very oldest experience seems to be that it is by far more safe, and certainly much more satisfactory, than tapping.

A Member.—I have never followed the exploratory incision as a means of diagnosis. I have not the least idea about the matter. I have seen patients in such a deplorable condition that to determine a diagnosis by exploratory incision, would have been an utter impossibility. I have had no experience in this respect or I would be pleased to give it to the society. In tapping, some of my patients died, and some lived.

Dr. Wilson.—Every laparotomy is an exploratory incision. I believe it is a safe way of entering the abdominal cavity. However certain I am as to diagnosis, I never feel satisfied until I have cut into the cavity. Still, I am one of those that do not think that exploratory incision is safer than tapping. In my experience, I have had less deaths from tapping than from exploratory incision. I have seen cases where it would have been impossible to have made such an incision—cases where it was next to an impossibility to make a diagnosis in any way.

Dr. Maury.—I have an experienceof cases of abdominal section made by exploratory incision. Diagnosis of the first case was pronounced as being a multilocular ovarian cyst, by three or four gentlemen who had seen it. It seemed to be crossed by a lot of intestines. An incision was made, but found it almost impossible to dislodge the intestines on account of the cyst lying between the walls of the abdomen. Incision having been made, the patient lived about twelve months after the operation. It was found to be a very large myoma. It filled the entire pelvic cavity.

Dr. Dunlap.—I had one case of that character come under my observation in Ohio. It had been diagnosed as an impacted rectum or colon. Patient sought my opinion in regard to her condition. I diagnosed pelvic abscess, and urged an operation, which was granted. I made an exploratory incision a little across the median line, passing from the muscles on the left side. It was pushed against the wall of the abdomen to the right side of the median line, and there I made the incision. I was not certain whether it had formed an adhesion or not, but I was entirely satisfied that it was against the wall of the abdomen. However, a large quantity quantity of pus discharged itself at once. The case was successful and is practicing medicine in Dr. Palmer's city to-day—Cincinnati.

Dr. Scott.—I have had cases of pelvic abscess, one being in the left lateral region. Patient was in a state of low hectic; left knot drawn up to the abdomen, making it impossible to expand it. I had some difficulty in making diagnosis. When patient came under my care, I called the state in consultation, and proposed an operation. At that time very little had been done in the way of pelvic abscess. A majority of the staffe physicians ruled against me. Under these circumstances, I was forced to postpone operation for several weeks. I then had another consultation and it was decided that I cut in about three inches. I did so; opened up the cavity; had some bleeding but not of a very extensive nature. After having emptied pus, I found the bowel had been opened. The result was most satisfactory. The second case I had, a few months ago, was a very unsatisfactory one. Symptoms were obscure; no distinct rigors; but I became convinced that an abscess had formed in the vagina. I opened it, emptied pus, and expected relief, but I was completely disappointed. The next day temperature had arisen; pulse was up, and in the course of three or four days, a most marked and severe rigor set in. Feeling satisfied that there was matter there, I resorted to an abdominal incision. When I opened the abdomen, I found it to be a case of salpingitis—right Fallopian tube extended; parts intensely adhesive. I cut away about two ounces of thick bowels, and afterwards I washed and cleansed the abdomen. Patient before the operation was suffering from septicemia,and died second day. In this case I think if I had made a correct diagnosis, I would have saved the patient's life.

"Cervical Fibroids as a Cause of Dystocia, and their Removal by Vaginal Enucleation," by Dr. Paul F. Munde, of N. Y.

Discussion on the Above.

Dr. Jenks.—The paper presented by Dr. Munde, has been an exceedingly interesting and instructive one. It strikes me that such cases are extremely rare. In my own experience, I have known but one case of fibroid of the cervix interfering with labor—a simple fibroid. I removed it partly by incision. This was the only case I remember of ever interfering with labor. As to the method spoken of, I should, by all means, undertake to remove them by enucleation, although I am a firm believer in Cesarean section before the tumor becomes encysted.

Dr. Wilson.—Such cases are rare. I have never seen a case of fibroid negligence disappear in labor. I have had one case, however, in which there was a fibroid in the body of

the uterus interfering with labor; but the discussion does not go that far. It confines the fibroid to the neck of the uterus. I have never seen a case where there was a fibroid in the neck of the uterus, interfering with labor. When such cases do occur, it seems to me that the best and safest way to remove them is by vaginal enucleation. It is not a difficult operation. I have seen about eight large fibroids varying from four to twenty ounces in the body of the uterus; but as I have said before, I have never had occasion to remove any in the neck of the uterus in all my experience.

Dr. Byford.—I find the paper which has been read of great importance, although I do not agree with some of the doctrines set forth therein. I have had the misfortune to meet with quite a number in my practice of tumors of the cervix that interfered with labor. In waiting sometimes a considerable time, we have two advantages. First, in a good many cases, large interstitial tumors of the cervix can be removed without obstruction to the child; whereas, if we enucleate early, we are liable to incur some danger to the mother, and much more danger of producing a miscarriage. I remember two cases in which I was personally concerned at the time of labor. One tumor weighed about eighteen ounces—not so large as the specimen exhibited by Dr. Munde. I had another case in which the tumor was pushed out of the pelvis entirely. That was in consultation with a gentleman of the western part of this city—Chicago. Not only was it pushed out of the pelvis, but remained outside. The tumor was so crushed that we had no difficulty at all in removing it. There was also a portion of it lying outside of the vulva. The only way to remove these tumors, I think, is by enucleation; but I deem it advisable to wait until labor comes on, as the operation can be performed with less hazard to the child, and no more hazard to the mother.

Dr. Jenks.—I can conceive of cases where difficulty would be encountered in removing tumors of the size mentioned—to be removed by enucleation. The tumor to which Dr. Byford has referred has by its growth formed a caption by pushing out and absorbing the muscular tissue. A number of these tumors issue from a very small pedicle that is connected with the muscular tissues of the uterus. These tissues run directly into the muscular tissues of the walls of the uterus, and we ascertain their location by means of the serrated spoon. Tumors grow in such a direction. It is there that the tissues of the blood vessels enter and give nourishment to the body. Supposing the tumor had been of a sub-peritoneal character growing out and pushing out near the peritoneal surface of the uterus, why he could not get at it so well then. It is a question whether he would succeed; but, however, he has succeeded admirably. I believe that where such tumors obstruct delivery that enucleation is the only practical and safe way of getting rid of them. I would rather undertake to deliver them that way.

Dr. Warker.—I have during my experience one case which illustrates Cesarean section and which shows the feasibility of just such procedure as has been followed by Dr. Munde in his valuable contribution to the Society. The growth of the tumor was in the posterior cervical wall, and above that which reached the pubis, was the cervix and the os uteri as though the part had been rotated. The method that I suggested was to make an incision and proceed to deliver the child. I was overruled; Cesarean section was performed. The child was extracted and saved; mother died. At the post mortem examination it was demonstrated that that would have been the method of procedure—incision per vaginam. I think this case points out clearly the feasibility of the procedure followed by Dr. Munde.

Dr. Reamy.—I had a case some four years ago of a tumor in the posterior wall at the time of labor. Some antiseptic injections were administered after delivery,and the child and mother did well. I would make no remarks on the selection of operations where the tumor is large between enucleation and Cesarean section. The question in my mind is, whether it is better to enucleate such a tumor prior to the time of delivery, or wait until labor is actually present. While there may be individual cases that would justify me not to enucleate before labor comes on, yet, I should say in the majority of cases it would be preferable. For two reasons: First, if the tumor is sufficiently large to prevent dilatation, its enucleation is easily accomplished; second, contradictory as these statements may seem to a great many, the physiological state of a woman is rendered less liable to sepsis, or the absorption of septic material during labor.

Dr. Munde.—The point that I desired to set forth in my paper was the ease with such tumors of the cervix would grow when they extend into the body. They may be classified as cervical and corporal, and can be removed simply by the presenting part in the vagina, and taking off traction

spoon. Enucleation is much more easy I think than any other method at the time of labor. I think a great deal depends upon the size of the tumors when first seen, and the rapidity with which they grow. They grow so rapidly in a great many instances, that manipulation into the cavity will be difficult. It seems we have no right to wait, and I think it is far better to fix a day, a week or ten days and enucleate it. (Here Dr. Munde spoke at some length of a case reported by Schroeder, which has already been published.) I have seen several cases of cervical fibroid, but not during labor. It was Dr. Thomas, I think, who saw a case of this kind a number of years ago, and reported it to the Obstetrical Society. In my case I did not use the spoon very much. I think a proper traction instrument is about as good a thing as we can use to remove such tumors from the cavity of the uterus. I found it difficult in one case to remove a tumor by the serrated spoon; but with considerable patience, I accomplished my object. I cannot close, however, without saying that if I had not had the spoon, I would not have dealt with the case. Again, I think there is no better method than that of enucleation for the removal of such tumors. Is is much better than resorting to all sorts of different measures. If we fail in the enucleation, we can easily do the rest.

[TO BE CONTINUED.]

ST. LOUIS MEDICAL SOCIETY.

REPORTED FOR THE REVIEW.

Stated meeting, October 4, 1884.

DR. DORSETT.— About eight weeks ago I was called to see a boy about five years old who had fallen out of the second story window. When I arrived, which was about an hour after the accident happened, I found him in a comatose condition, from which he could not be aroused, respiration about eight or ten per minute, and the whole body bathed in a cold perspiration. Upon examination, I found a compound comminuted and depressed fracture of the skull, involving the left parietal and back part of the squamous portion of the temporal bone. Upon examining the case carefully I observed that the boy had strabismus. Another physician soon arrived and assisted me. I enlarged the opening, and tried to elevate the depressed fragment with an elevator; but found it impossible to do so, as the space was too small to admit it. I then trephined, taking out a small button, raised the depressed fragment which broke off as I raised it. I removed some four or five pieces of bone; some of them were imbedded in the brain substances, having passed through the dura mater. These were all removed; one piece measured one and one half inches in length and about half an inch in width. The portion of the brain exposed was then sprinkled with a thin film of iodoform. After I got through the operation the child cried, which was the first sound he had uttered since the accident happened. The wound of the scalp was then drawn together with three or four sutures, part of which healed by first intention. A small portion which was left for drainage remained open three or four days and finally healed up. It is especially worthy of note that not a particle of pus has formed from the time of the receipt of the injury until the present time, although the dura mater was torn and some of the brain substance exuded. The boy also had a fracture of the left femur; I think it was more an epiphysiaryseparation than a fracture proper The third day after the receipt of the injury the temperature was 99 3-4; the fourth day it ran up to 100 and then gradually dropped back. The strabismus disappeared, the eyes becoming straight on the fourth day after the injury. The boy is now going around on crutches and is to all intents and purposes well.

DR. DUDLEY.— How large a space did you uncover?

DR. DORSETT.— At least two and one half inches of space was uncovered; I exhibit some of the pieces of bone removed; one particularly is very sharp and pointed; this one (showing it) I took from the brain substance.

DR. GREGORY.— did you use any antiseptic dressing?

DR. DORSETT.— I sprinkled the brain substance with iodoform, and when I dressed it three or four days afterwards I used a solution of listerine, probably one to fifty; those were all the antiseptics used.

DR. GREGORY.— Mr. President, the Doctor's case is certainly a very interesting one. I can relate a case that came under my observation some eight years ago. A lady was thrown from her carriage in rapid motion and dislocated her arm at the elbow and fractured the lower extremity of the radius, the bone coming through. I could count the flexor tendons; I reduced the dislocated elbow and dressed it upon a shingle; not a particle of pus ever formed, nor was any iodoform or listerine used; the limb was simply rested upon a shingle just as I usually do in this form of fracture. I laid the part right on the shingle and passed a roller bandage around the arm and bound the whole to the splint.

In the course of ten or twelve days the wound had closed, and in the course of a few days later the part was healed, there never being any more complication than if it had been a simple fracture. Now it is remarkable that one surgeon reports a case of success where he uses agencies known as antiseptic, and another surgeon reports a successful case in which it is not used; certainly, these things are most extraordinary. One man reports an operation and insists that he is indebted to antiseptics for the success of his operation, another man performs the same operation without them, with equal success. The experience is enacted here every day; and it is certainly very extraordinary. I think, and have thought ever since I have been a doctor, that if there was anything on earth established beyond a question, it was that vaccination protects against small-pox, yet a journal was sent me within the last few weeks from London, representing a Society in which it insists that we have been fooled all this time. This is the doctrine of the time of a very large number of our profession, that we have simply been fooled all the time by this thing called vaccination. Now I don't believe it; I believe in vaccination; I am still a victim, but it is certainly most remarkable. If there has been one thing more popular than another with the profession, it has been this idea of an agency against sepsis. It seems to me that I should feel pretty well satisfied that success would crown my efforts in any surgical operation without antiseptic dressing as with it.

Dr. Edward Borck.— Dr. Gregory stated, he did not use iodoform or listerine; I should like to ask what did he use?

Dr. Gregory.—I used blood. That is my reason for asking the Doctor about this thing, I was in hopes he hadn't used any antiseptic. While I am up I will state that I have used iodoform very freely in the last few years, and especially the last few months, and I feel almost certain that I poisoned a man with iodoform. I removed a large tumor involving the wall of the chest, necessitating the removal of a portion of the ribs, and sprinkled a mixture of equal part iodoform and subnitrate of bismuth into the wound, covering the entire surface, and dressing it with a bandage. I kept this up for four or five days; after the first dressing on the third day the man complained that he was very nervous; that if he attempted to raise his hand it felt twitchy and he complained a good deal in that way; he was very much changed; he did not feel that he was himself any more, and I removed this iodoform from him. He remained in the hospital five or six weeks and went away with this nervous twitch; whenever he attempted to put on his boots or shoes and attempted to hold up his foot there was such a twitching that he had to be assisted. I could not ascribe it to anything but this iodoform and he acted as if he was a little "off," as the common saying is. His wife has written to me a number of times since, she not knowing about my suspicions, but considering the symptoms described and the general nervous perturbation, I cannot but believe he was poisoned with iodoform; that is the condition of the man and I suspect it to be the effect of the iodoform.

Dr. Adolphus Green.— I don't see anything peculiar in what Dr. Gregory has stated; all wounds do not necessarily become septic. We knew very well before we knew anything about antiseptics, there were a great many wounds, and very serious wounds too, that got well even without suppuration; then again even if septic influences do occur, if the micro-organisms which cause this condition are present, we know that some individuals are more susceptible to their influence than others. Two persons exposed to the same septic influences will not be affected in the same manner, one being susceptible while the other is not; but one thing is sure, antiseptics do prevent disastrous results in some cases, and we should take advantage and use them for the possible good results they may produce. We all know that there are such septic influences at work; that some persons die from blood poisoning, or pyemia or septicemia, and knowing that there is such a thing, and not knowing in what person it is apt to occur, I think prudence and common sense dictate that we should act on the safe side and use antiseptics. I had this experience very lately; about two months ago a lady fell down a whole stairway and received a pretty severe wound on the forehead and on the cheek. She was a very nervous person. I tried to wash out the wound using an antiseptic spray—a two per cent solution of carbolic acid—but she commenced crying out with the pain and I had to stop its use. I kept the wound as clean as possible, but, about two or three days after, erysipelas commenced. I again made use of antiseptics and by them stopped the progress of the erysipelas, checking it at once, and the lady got well without any suppuration whatever. The erysipelas was checked, just on the same principle that we check the production of micro-organisms. If I had not made use of antiseptics it is probable that she would have had a severe case of erysipelas—that form which takes

place in the subcutaneous cellular tissue. Concerning iodoform, I see in some of my books that some surgeons think iodoform is a very dangerous remedy, especially in flesh wounds. I have not used iodoform, perhaps I might use it in some cases but I found carbolic acid to be a very satisfactory remedy.

Dr. Edward Borck—Dr. Gregory's says: "his case healed without pus, and that he dressed it with blood." This has often been done and can be done again; wounds can be healed and dressed as well with blood as any other substance. I would like to call your attention to. a statement which I made the other night. When in Europe, I visited one large hospital in which a surgeon has from five hundred to six hundred surgical cases, and performs operations daily, using bichloride of mercury as an antiseptic; and he informed me—and stated the same in a paper he read at the "Congress" at Copenhagen, that since he discarded the use of iodoform and used the bichloride of mercury in all his dressings, he never had a case of erysipelas or septic poisoning or anything of the kind. A mile or so distant from this hospital is another large hospital, in which there are perhaps from 200 to 300 surgical cases, and in which operations are also performed daily. The surgeon in charge stated he tried the bichloride of mercury solution faithfully and failed in obtaining good results with its use; but since he has discarded it and used iodoform, he has not had a case of erysipelas or a case of septic poisoning. But that is not all. Mr. Lawson Tait in England uses, he says, nothing in his surgical cases but distilled water, and all his cases get well, or at least he has equally as good success as those who use antiseptics. In connection with the case that Dr. Dorsett has reported I will relate a case which occurred twenty-five years ago and combines a great deal of interest. A boy about nine years old, not in his right mind, wouldn't learn, wouldn't go to school, in short was rather idiotic. He had a great propensity for pulling horses' tails. He was told, that, if he continued in this practice, some day he would get kicked and his brain be smashed in. Notwithstanding this warning he continued to pull horses' tails, and one day while in the act the horse did kick his brains in. A messenger came to town for me; I rode nine miles into the country and found the boy in pretty much the same condition as that in which Dr. Dorsett found his patient. At that time we were not very fond of using antiseptics; the skull was fractured and the brain was oozing out of the wound. I dressed the wound according to the practice then prevalent, no suppuration occurred in that case. The boy got well, and the strangest element of the case was, that, after getting well, the boy was less idiotic; he went to school and learned very well; he is still living and is the father of three or four children.

Dr. Atwood.—How much brain substance escaped?

Dr. E. Borck.—Half a teacupful; he had too much brain! This boy got well without antiseptics and without suppuration, so that, as Dr. Gregory has observed, we see that one surgeon has success with one thing and another with another. I am of the opinion that cleanliness is the best antiseptic. I have used all kinds of solutions over and over again, and have come to the conclusion, that all that is necessary is perfect cleanliness.

Dr. Hurt.—If there is any danger in the use of iodoform I should of course be very glad to be posted; I would like to hear both sides of the question discussed; but my acquaintance with iodoform has been quite favorable to its innocuousness as a local application. It is superior in my judgment to a great many things that have been more or less popular at different times with the profession. Some years ago, when I took charge of the City Hospital, I found quite a number of cases of chronic venereal ulcers, local sores, chancroids and indurated buboes and troubles of that kind, which had been in the hospital for a number of weeks, some had been there months, and I introduced the iodoform and used nothing else. I washed the sores once a day and kept them clean and sprinkled them with iodoform. My assistants, as well as the patients, all congratulated me on the introduction of the new plan of treating these sores, and a great many of the patients were dismissed in a short time.

Some years ago I was called to attend a little girl, about five years of age, who was trying to carry her little baby brother and accidentally set her foot into a basin of boiling hot water. The child had her shoe on but that didn't protect the foot which was scalded badly so that the skin came off with the stocking up to a point below the ankle. After the first two or three days, using such soothing applications as could be made, I prescribed iodoform and bismuth, one part of iodoform to two of bismuth subnitrate. This was dusted over the raw surface from a box that had been punctured with a pin so that the mixture could be shaken on thickly, and it had a very happy effect. In a few week's granulations seemed to indicate that there

was a healing process going on quite rapidly. In this case we used iodoform over a considerable surface—the entire foot—and this treatment was continued for over a month or six weeks before the child got entirely well; and yet I discovered no symptoms of poisoning in that case.

Two or three weeks ago I was called to see a little boy about ten years of age, who, in running after his comrade in great hurry and without caution struck the foot board of a street car, possibly an iron foot-board, just below his knee joint, just at the lower insertion of the tendo patellæ, and tore off the skin for about four inches in a V shape. The point over the tibia was the lowest point and on each side the wound was about or nearly two inches in length, making a wound nearly four inches long. I dressed the wound and approximated the edges with strong adhesive strips. My first intention was to use sutures and stitches; but I changed my mind, as the child had a horror of stitches and sewing, and as I found I could bring the edges of the wound together very well with strong adhesive plasters. This I did, and then put the child's leg on a plaster of Paris splint, with a view to secure rest and retain the parts in position in order to prevent the tearing asunder of the wound. The dressing in that case was iodoform and bismuth from the outset. I had not seen the patient for more than a week; he was then doing very well, however, under the care of his mother, until yesterday, when I was called to see him, his mother thinking something wrong was going on. I discovered at the outer margin of the wound, where it had commenced healing, and where it had actually healed over, there was a slight œdematous flush of the surrounding surface and a little blister had formed. Upon examining the surrounding parts, it occurred to me that the secretions of the wound had accumulated at the margin of the splint at that point, because that was the site of drainage, and that this œdematous condition was in consequence of septicemia, notwithstanding iodoform was used, but at this locality the wound had not healed over, perhaps, because the dressing had not been extended over the point as carefully as it had been over the other portions of the wound, and also owing to the decomposition of the secretions at the margin of the splint. Reasoning thus with myself that septic matter had been formed there, I removed the supposed cause and changed the dressing, and used liquor plumbi acetatis, with a little carbolic acid. I am informed to-day that the patient is looking better, and I think the wound is going on very well The indications were that there might probably be danger of erysipelas, although the child had no fever and no other indications of constitutional trouble; the trouble seemed to be entirely local. I have never had a case where I have had occasion to think I had done my patient an injury to the use of iodoform, although I have used it quite freely in some cases.

Dr. Scott.—I have read and studied all about these antiseptic treatments and the wonderful reports of cases, and the wonderful successes which attended various surgeons in regard to them, but I cannot give my adherence to them, from my own standpoint. It is true I have not many surgical cases, but as an obstetrician and gynecologist I have seen a good many wounds in those cases; and as an obstetrician, I am very frequently called upon by midwives to rectify a torn perineum. I have never, in my obstetrical practice, used an antiseptic at all; I don't believe in it, though it comes to us with the endorsement of men of very high authority; yet I believe that perfect cleanliness is the best antiseptic. As an obstetrician I go to my cases with clean hands and have everything about my patients clean. I never used iodoform or carbolic acid in those cases in which I am called to restore a ruptured perineum; I simply practice thorough cleanliness. About ten days ago I sewed up a very ugly wound in the perineum, which extended to the sphincter, without the least bad result. I put in stitches of silk, approximated the parts most admirably, and had a splendid result; I used nothing at all of antiseptic treatment; in fact, I may say I never use antiseptics in those cases, and I have had, within the last two or three years, a great deal of that to do. In all my gynecological practice I never use iodoform; I never used antiseptics in those cases but twice or three times, simply because I have always believed that thorough cleanliness is the best antiseptic; pure water, if we are to use anything at all, is the best. I believe I once did a man a very great injury by using carbolic acid solution; and this agent also I have abandoned to a very great extent in my obstetrical practice. I require of my nurses that the napkins shall be removed as soon as they become stained, not as soon as they become offensive. I make it a rule to wash my hands before making the examination, in pure water, without the use of any carbolic acid. Of course, before making the examination, I wash my hands carefully. I wash my instruments also, before making the examination, in pure water. I have never had a case of erysipe-

las or cellulitis; never had any bad results following any of the operations which I have performed, and I have made quite a number in the last two or three years. I believe cleanliness is the best antiseptic, and when we see the reports from Copenhagen, that one gentleman has great results from the use of this particular agent and condemning another, and, a few hundred yards off, another gentleman condemning this same antiseptic, and claiming to have good results with the other, it occurs to me that, perhaps, after all, the true secret of success is in the cleanliness which is brought about by the use of either. I never had but one case of puerperal fever in my own practice, and if I should have another, I should use nothing but water.

Dr. A. Green.—If you should be so unlucky as to get such cases I think you would lose a good many.

Dr. Scott.—The only case I ever had of the kind occurred last winter; in that case no antiseptic except water was used and the woman made a very excellent recovery. It was a very interesting case and I intend to report it sometime. After she began to get well she had phlegmasia dolens.

Dr. A. Green.—What is phlegmasia dolens? Is it not a part of puerperal fever?

Dr. Scott.—Not always, a man may have phlegmasia dolens.

Dr. Atwood.—I have seen two or three cases of phlegmasia dolens, not at all associated with puerperal fever; phlegmasia dolens per se.

Dr. A. Green.—I simply wished to say that the very same factor that will produce puerperal fever will produce phlegmasia dolens in some cases.

Dr. Williams.—It is a settled fact that the so-called antiseptics do not prevent suppuration, they do not check it when it has once started. Only a few days ago I was consulted by a stone-cutter in this city who, in his work, received a blow by a little pebble on the centre of one of his corneæ, the result was that a suppurating ulcer started on the eye and in connection with it purulent matter developed in the anterior chamber. This kind of ulcer is always very prone to extend in spite of treatment. On that eye I used antiseptic treatment and tried to make the man get well. I used iodoform quite freely in substance, also boracic acid in substance repeatedly without the slightest effect upon the ulcer; in fact, the ulceration spread in circumference from the very beginning and these applications hadn't the slightest effect in checking the suppuration; this ulceration extended in spite of all the antiseptics I could use and finally destroyed the entire cornea, and the man's eye was lost. I am not a believer in antiseptics, and some months ago in this Society I predicted that the present so-called antiseptics would in a short time go into disuse, and we see already that quite a number of prominent men are disbelievers in the effect of antiseptics. Certainly they do not prevent suppuration, neither do they check it after it has started; I mean to say that they don't do it in all cases; they may occasionally, but in all cases they do not; certainly so far as suppuration of the eye is concerned, they are practically or nearly valueless.

Dr. Mulhall.—Doctor, in suppuration of the middle ear, what would you use?

Dr. Williams.—Suppuration of the middle ear is very rapidly cured by boracic acid?

Dr. Mulhall.—What is boracic acid?

Dr. Williams.—Whether the effect is produced by its antiseptic properties or not is more than I can state; if you use pulverized earth in the same manner perhaps it would have the same effect.

Dr. Mulhall.—Why don't you ever try it; have you ever tried pulverized earth?

Dr. Williams.—I was always satisfied with boracic acid.

Dr. Mulhall—Wouldn't iodoform do nearly as well?

Dr. Williams.—No, sir; not by any means; it wouldn't answer the purpose at all. There is something peculiar in boracic acid; in suppuration of the drum of the ear it is particularly effectual; it is not so effectual where suppuration comes from the external meatus; such has been my experience. Boracic acid is applicable particularly to those cases of suppuration where the pus comes from the drum cavity; not so effectual where suppuration comes from the external meatus; for instance, in a case of otitis externa where the inflammation causes intense suffering and after a little while the secretion becomes purulent, a purulent watery secretion occurs; if to this surface is applied boracic acid the probability is that you will cause relapse of the trouble and have an acute inflammation, so that in my experience in inflammation of the the external meatus with excessive suppuration, boracic acid is not so applicable as in cases of suppuration of the drum cavity. I am not sure but that boracic acid is a perfect succees in these cases by reason of its antiseptic property; certainly so far as inflammations about the eye are concerned these antiseptics will not prevent suppuration, nor will they check it or cure it.

Dr. Wesseler.—I desire to relate a case in which I treated a patient with iodoform. It was in the case of a brewer who had fallen with one leg into a vat of hot beer; extensive sloughing followed. I first dressed the wound with flour, simply dry flour, until the slough had separated. After removing all the slough I applied caustic, but the man complained so much of the pain occasioned by it that it was thought best to use iodoform, and this I tried for a week or two. The man got along very well in respect to the burn, but it produced intoxication; the man became completely unconscious; it caused spasms on more than one occasion before I suspected that it was due to iodoform. I then changed the treatment and the spasms ceased. I observed after each dressing that the man became very nervous.

Dr. Mulhall.—How much surface was exposed?

Dr. Wesseler.—Almost the entire thigh.

Dr. E. Borck.—How much iodoform did you use?

Dr. Wesseler.—I simply covered the surface with a thin film, about a dram or probably more. The first week it didn't seem to have any effect, but after the second week it produced this peculiar toxic effect; yet I have not lost confidence in it.

Dr. E. Borck.—I would like to call attention to a practical point, suggested by the narrative of Dr. Gregory's case, and to ask of him the question did you use any water in your case; did you wash the wound at all?

Dr. Gregory.—No.

Dr. E. Borck.—That is where the interesting point comes; it has been my experience that if you dress the wound in these cases in its own blood, and leave no water on the wound, clean it perfectly, have the surfaces dry and be careful that you do not leave any coagulated blood in the wound and dress it in its own blood, you will always have union by first intention; but we should never use water. I agree with Dr. Scott that water is an admirable agent; I always use settled water; we cannot use the ordinary hydrant water, it is not clean enough; I always have the water boiled and allowed to settle, keep jars of it in my office.

Dr. A. Green.—Why should you not apply water to these wounds? Give us the reason?

Dr. E. Borck.—I am giving you my practical experience; the water is not clean. I presume that is the reason.

Dr. Bremer.—I would like to ask the gentleman who presented the first case, whether there were no disturbances of motility on the opposite side from which the injury occurred?

Dr. Dorsett—No, sir; there was not; he had a fracture of the leg on the opposite side.

Dr. Bremer.—Didn't you say there was a fracture of the skull?

Dr. Dorsett.—Yes, sir; on the left side; and a fracture of the femur on the right side.

Dr. Bremer.—You stated that this fracture was in the parietal bone?

Dr. Dorsett.—Yes, sir.

Dr. Bremer.—Now it would be reasonable to expect the occurrence of hemiplegia of the other side, because the site of the injury is about the origin of the fissure of Rolando, that is to say of the motor zone. In all these cases, Mr. President, I think it would be well to remember a topographical tract, we might call it, which consists in taking the measurement of the skull in this way (illustrating); supposing this to be the brain, this the fissure of Sylvius, this the fissure of Rolando, and here is the motor zone, the anterior ascending and posterior descending convolutions. How is the fissure of Rolando, or the apex of it rather, to be determined? We lay a horizontal line from the anterior nasal spine to the external meatus of the ear, then a vertical line to that going from the meatus to the top of the head, 45 millimetres—which is about 2.25 inches—behind that point lies the upper end of the fissure of Rolando. Now it would have been very interesting in this case to determine the seat of the fracture and the depression inrelation to the upper extremityof the fissure of Rolando. Here is situated the motor zone of the upper and lower extremities, and these are just the cases where the localization can be verified or disproved. Now I suppose that this fracture was situated more in the anterior portion of the brain; the anterior lobe which we know bears a great deal of insult. Some weeks ago I read of a case, that went through the papers, of a celebrated operation performed by a New York surgeon. A bullet was extracted from the anterior lobe of the brain. This operation was performed at Bellevue Hospital; there were no complications at all. In regard to the use of antiseptics I desire to add a word or two. There is no doubt that there is a carbolic acid poisoning as well as an iodoform poisoning. The first surgeons in Europe, who use both these dressings, have produced poisoning by them; and the symptoms of iodoform poisoning as given by them correspond to the description given by Dr. Gregory. The trouble occasioned in his case is

probably iodoform poisoning, which consists in a great nervous prostration. Dr. Wesseler mentions a case of extensive burn; in that case it is questionable whether the convulsions that took place were to be justly ascribed to iodoform or rather to uræmia. We all know that this takes place in extensive burns on account of the extensive suppuration of the subcutaneous tissue. This matter of antisepsis, as some gentlemen have remarked, I believe has passed its acme and a more rational view is taken of the matter. I remember when in Germany in the year 1876, a war was raging between the surgeons in that country as to the value of antiseptic surgery; there was the great antiseptic trio in the northern part of Germany, who reported the most remarkable cases; whereas Langenbeck and Billroth were against antiseptics and had just as good results and, Billroth perhaps reported better ones. The whole thing amounts to this in my opinion: there are two factors that have to be taken into consideration; one is the surroundings of the patient, and the second is the predisposition—state of nutrition in fact—it is the constitution of the patient. In America long before antiseptics were dreamed of, the most brilliant, the most remarkable and almost incredible operations were performed without any antiseptic precautions whatever; and these patients were shipped 50, 60 or 100 miles away, and they got well. But these marvels may be explained in this manner: American muscle like English muscle, bears operation better than Continental muscle; that fact has been observed time and again, in the great wars that raged in Europe, in which it was shown that Englishmen bore operations better than Frenchmen. In the second place there are better surroundings here; fifty or sixty years ago no doubt the air was purer and not so contaminated by disease germs as it is to-day; but with increasing population, with increasing filth and misery in the large cities, the results of such operations cannot be so good unless care is taken that disease germs do not get into the wound. There are two ways of treating surgical cases antiseptically: one is by preventing the germs from getting into the wound, which is certainly the best; that can be done without antiseptic remedies at all; and the other is to kill the germs after they are in the wound, and this is a very hard thing to do. There is no doubt that in the European hospitals erysipelas at one period was prevalent to a fearful degree; that surgeons almost felt like ordering a coffin whenever they performed a capital operation; such was the state not long ago. Matters have improved enormously since the doctrine of Lister gained ground among the European profession. It is to the immortal merit of that man that he taught the profession ideal cleanliness. This is the essence of his system, a system of ideal cleanliness, which every surgeon now tries to follow. The bichloride of mercury has been mentioned and is quite the rage now in Germany. It has been found that a solution of bichloride of mercury (1 to 15,000, will kill disease germs, for instance, bacillus anthracis, or the bacillus of tuberculosis. In my own practice, as a country practitioner, I have performed quite a number of operations and I never used any antiseptics. The amputations which I performed are not very numerous, still they exceed 10 or 15, and all of them healed by first intention, and I didn't use any antiseptic; but I ascribed this favorable result to the purity of the air, the absence of disease germs and to the comparatively good constitutions of those upon whom I operated.

Dr. Scott.—There is another point which the Doctor failed to mention; the success of American surgeons in most of their cases is due to the fact that many of the operations are performed upon the patients at their homes. I think that all the larger operations should be performed at the patient's home and not at the hospital. It is the bringing a patient from the country into the city, and putting him into a hospital, surrounding him with patients, with unsympathizing persons, and thus depressing the entire feelings, that causes, in a great many cases, diastrous results. With this depression of the feeling comes a physical depression. As I remarked sometime since in the report of an operation performed in the country in which the patient made a good recovery, I believe that these operations should be performed at the home of the patient, although they may not be so elegantly surrounded as they are in the hospital, although there may not be so many facilities for the operation; yet I think the kindly influence of home, friends and home nurses produce tonicity which will enable the patient to recover from the operation, and which, if preformed in a hospital, would cause the patient to succumb. There is a decided advantage in having the patient surrounded by familiar faces and with sympathizing nurses. I do not think that we should surround a patient with entire strangers and subject him to an operation. I took occasion when this case was reported and the Doctor said he had gone to the country and performed a very formidable operation, that the success of his operation was perhaps due partly to the surroundings of the

patient, by friends, by her family, and by sympathizing nurses; that the combination of these was probably the reason why she made such a good recovery.

Dr. Hughes.—No one has referred to the fact that the experience obtained during the late war was sufficient to satisfy the ordinary observer that the best antisepsis is a resisting organism; that the true antisepsis of an individual is a thoroughly toned up nervous system and physical organism. This was shown in the wonderful results of surgery upon the field. It was shown in the manner in which patients got through operative procedure without fatalities from chloroform administration; there were no deaths from chloroform administration recorded during the war; and it has occurred to me that sometimes where surgeons have reported the greater success with antisepsis, they achieved their results by those conditions essential to health, independent of antisepsis. Now you know how much more easy it is to check hemorrhage which takes place in an individual whose nervous system is thoroughly toned up and who is struck suddenly with an accidental injury and demands the services of the surgeon than in one of a contrary physical condition. In patients of a robust physiological, physically healthy condition the vaso-motor system is such that hemorrhage takes place with less facility. The experience of military surgeons is that ligatures cut through the arteries of well men with less facility than those who are wasted by exhausting conditions of the nervous system due to long continued debility; and that surgeon is the wisest who, in contemplating a capital operation, will see to it preparatory to the adoption of his antisepsis (if he be an antiseptic crank) that his patient is so toned up as to possess, as far as practicable and possible, resisting power to the two influences of decay and disease. It certainly requires a certain amount of physiological resistance to sustain the antiseptic practice as it was put in effect a few years ago. It was a source of discomfort to the operator as well as the patient, and spectators also; and it was the experience of many men who witnessed operations in a close room, the air excluded to a large extent, temperature elevated and in addition the antiseptic vapors present, that it was a great relief, to a physiologically endowed individual, to get out of such an atmosphere; and if the atmosphere was intolerant to a well man, it ought not to be considered tolerable to a sick man; and most surgeons who resort to these antiseptics in their practice, take pains to see that the apartments were very soon after ventilated for their own comfort; and the patient got more ventilation in hospitals where antisepsis was practiced than they got at those in which it was not practiced, which was the only good thing those practices did. Now the army surgeons during the war used castile soap suds; that was the main reliance; wounds were washed out with castile soap suds; that is my own experience, and the results were satisfactory. I recollect no cases of septic poisoning in the field hospitals with which I was connected.

Dr. A. Green.—Did you have hospital gangrene or erysipelas?

Dr. Hughes.—We never had any gangrene or septic poisoning or anything of the kind in any of the field hospitals with which I was connected. I know they had it here in the barracks hospital, and in the close wards at Jefferson Barracks; but in the field tent-hospitals, where we had six or seven patients, never more than eight in a tent, mostly five or six, very frequently four, where we had an abundance of fresh air, we needed no antiseptics. As regards the injuries in the motor area, of course you cannot determine, from a traumatic injury of the cranium, whether the subjacent motor area of the cerebral cortex is implicated or not; it may be a cross counter-coup and affect the opposite side, or it may have been that the injury affected the base of the brain; I did not hear the case reported.

Dr. Bremer.— The brain substance came out at that point; I think that is what the Doctor said?

Dr. Dorsett.— I said there was some oozing at the point where the spicula of bone had pierced the dura mater, and that there was strabismus which lasted five or six days.

Dr. Hughes.—The point that I wanted to make just now which had not been alluded to, is this: that the brain does not occupy the cranium as a plenum; hence injuries at one part of the skull may produce an impression at a different point from which the injury occurs.

Dr. Mulhall presented an instrument for illuminating the mouth, throat, etc.

Mr. Leslie.—This is simply the Edison light reduced to this dimension for use in the mouth, vagina, anus, and to some extent in the rectum. The instrument consists of a small carbon loop which is rendered incandescent by the electric current; the currents are attached to the extremities of the electrodes.

Dr. Mulhall then demonstrated the employment of the instrument upon the mouth and throat of a patient in attendance.

AMERICAN PUBLIC HEALTH ASSOCIATION.

The Twelfth Annual Meeting of the American Public Health Association convened Tuesday morning, Oct. 14, at Liederkranz Hall, corner Thirteenth street and Chouteau avenue. The large hall was used and the assemblage was called to order promptly at 10 o'clock. Those seated on the platform were Drs. A. L. Gihon, president; J. E. Reeves, vice-president; Hon. Erastus Brooks, second vice-president; J. A. Watson, secretary; J. B. Lindsley, treasurer; E. M. Hunt, ex-president; Jos. Spiegelhalter, chairman of the local committee of arrangements, and G. P. Conn, president of the State Board of Health of New Hampshire.

The Delegates.

Among those present were the following, nearly all of whom are members of the medical profession, and the majority of whom hold positions in various state and national health organizations:

E. M. Hunt, Trenton; C. A. Lindsley, New Haven; J. B. W. Nowlin, Nashville; G. B. Thornton, Memphis; S. T. Armstrong, Memphis, U. S. M. H. S.; L. F. Solomon, New Orleans; F. Loeper, New Orleans; H. B. Baker, Lansing, Mich.; J. H. Raymond, Brooklyn; J. E. Reeves, Wheeling, West Va.; J. L. Carter, Dallas, Tex.; Erastus Brooks, West New Brighton, N.Y.; R. M. Swearingen, Austin, Tex.; Col. L. C. Fisher, Galveston, Tex.; W. H. Watkins, New Orleans; S. H. Durgin, Boston; A. G. Friedricher, ——; J. M. McCormick, Bowling Green, Ky.; Maj. C. Smart, U. S. A.; T. N. Stevens, Indianapolis; J. H. Chambers, St. Louis; Jos. Spiegelhalter, St. Louis; Eugene R. Lewis, Kansas City; G. H. Rohé, Baltimore; J. G. Simons, Charleston, S. C.; H. Morris, Philadelphia; W. B. Horebeck, Charleston, S. C.; B. F. Davenport, Boston; A. Alt, St. Louis; W. H. Stilwell, Humbolt, Tex.; R. Harvey Reed, Mansfield, Ohio; W. J. Harris, St. Louis; V. C. Vaughan, Ann Arbor, Mich.; H. G. Fraser, Charleston, S. C.; A. R. Rui, Springfield, Mass.; G. Homan, St. Louis; S. S. Herrick, New Orleans, Louisiana; James D. Gatch, Lawrenceburg, Ind.; Wm. Bailey, Louisville, Ky; W. S. Robertson, Muscatine, Iowa; G. P. Conn, Concord, N. H.; P. H. Bryce, Toronto, Can.; George E. Trenot, Greenville, Ill.; A. N. Bell, New York; P. Thompson, Henderson, Ky.; D. V. Dean, St. Louis; L. H. Montgomery, Chicago; James Rodgers, Knoxville, Tenn.; W. H. Dickinson, Des Moines; Wm. K. Newton, Paterson, N. J.; G. Devron, New Orleans; R. W. Dunlap, Danville, Ky.; H. P. Walcott, Cambridge, Mass.; Crosby Grey, Pittsburg; O. R. Early, Columbus, Ky.; G. M. Sternberg, U. S. A.; John D. Beugless, Brooklyn; J. T. Reeve, Appleton, Wis.; D. B. Hillis, Keokuk; M. N. Hewitt, Red Wing, Minn.; W. H. Leonard, Minneapolis, Minn.; D. W. Hand, St. Paul; C. H. Fisher, Providence, R. I.; Henry Lamb, Rochester, N. Y.; Edward Bauschy, Rochester, N. Y.; C. E. Briggs, St. Louis; E. H. Gregory, St. Louis; W. B. Conery, St. Louis; Robert Moore, St. Louis; J. F. Hibbard, Richmond, Mo.; D. C. Jacokes, Pontiac, Mich.; W. C. Cook, St. Louis; J. C. Cabanne, St. Louis; J. H. Hermann, St. Louis; G. Townsend, Washington; W. E. Fishel, St. Louis; P. S. O'Reilly, St. Louis; J. Stewart, Baltimore; C. W. Chancellor, Baltimore; F. Formento, New Orleans; R. P. Talley, Belton, Tex., and W. A. Dickinson, St. Louis.

The Local Arrangements.

The chairman, after announcing the convention ready for business, introduced Dr. Spiegelhalter, who spoke of the arrangements for the entertainment of the members. The railroads have been very liberal in the matter of issuing passes, and the committee has been very generously treated by the business men of the city. The liberality of the gas companies would enable the committee to illuminate the central portion of the city, in the same way it had been lighted during Fair week. Carriages would be at the Southern Hotel at 7 o'clock Wednesday evening (when the illumination would take place), and would land members at the Liederkranz in time for the Convention. Friday afternoon the members would be driven to the suburban parts of the city, to the residence of Henry Shaw, etc., and would return in time for the members to attend an informal reception tendered by the Elks. For Saturday the programme had not been agreed upon as yet. In order to ascertain the members who would participate in Friday afternoon's entertainment and those who would remain over for Saturday, the members were requested to leave their names with the register clerks. An invitation from Prof. Woodward of the Normal Training school to visit that institution and from Daniel S. Brown to visit his green-house were among the courtesies that were extended. The Mercantile, St. Louis, Germania and Liederkranz clubs invited the members of the association to use the privileges of those clubs. The Public School and Mercantile libraries would open their shelves to members.

Dr. C. Smart, surgeon in the U. S. Army,

read the report of the committee on organization. The association would be organized under the laws of the District of Columbia, which required that twelve members of the association should be residents of the district. The name of the organization was to be the American Public Health Association. Its object; the advancement of sanitary science and the promotion of measures of public hygiene. The officers of the association would be a president, first and second vice-president a secretary, treasurer and executive committee of six, and said executive committee would have charge of all disbursements.

Dr. Devron moved the adoption of the plan as read, and the motion was carried.

The secretary not having any report to present, the report of Dr. J. B. Lindsley, treasurer, was next taken up. It was as follows:

RECEIPTS.

Balance brought forward - -	$1,281 28
Received from sale of "Public Health" - - - - - -	163 88
Received from annual fees of members - - - - - -	1,455 00
Total - - - - -	$2,900 16

DISBURSEMENTS.

Paid for printing, binding and distributing Vol. I. of reports -	$1,146 81
Paid president's postage and stationery - - - - - -	25 00
Paid on account of former secretary for stationery - - -	204 13
Paid secretary's postage, printing and stationery - - -	166 10
Paid treasurer's postage, printing and stationery - - -	55 99
Paid treasurer's traveling expenses	56 60
Total - - - - -	$1,654 63

SUMMARY.

Receipts - - - - -	$2,900 19
Expenditures - - - - -	1,654 63
Cash on hand - - - -	$1,245 53

The above was expended by the executive committee, and vouchers for the same were submitted.

On motion the chair appointed Drs. Devron, Bailey and Bell as a committee to audit the treasurer's accounts.

NEW MEMBERS.

St. Louis.—Dr. Frank R. Fry, Prof. J. P. Kingsley, Drs. W. A. Hardaway, T. E. Holland, J. M. Scott, B. M. Hypes, T. F. Prewitt, P. V. Schenck, F. J. Lutz, C. A. Todd, E. C. Briggs, G. W. Littman, LeGrand Atwood, Adolph Schlossstein, J. H. Hermann, Luther C. Toney, F. W. Wesseler, Eugene R. Lewis, W. B. Outten, G. W. Carson, D. V. Dean, P. S. O'Reilly, A. J. Steele, John Green, Charles Reiss, G. Hambach, Adolf Alt, A. C. Bernays, E. M. Nelson, I. N. Love, G. Baumgarten, G. J. Engelmann, Louis Bremer, C. O. Curtman, and Messrs. W. J. Lemp, Chas. Speck, N. O. Nelson, C. Shaler Smith, Judge Barclay, E. W. Donk, J. C. Cabanné and J. H. Chambers.

Mr. Brooks then offered a resolution that cordial invitation be tendered to the National Conference of Charities and Corrections to attend the sessions of the Association. Adopted.

The Committee on Necrology reported that the biographies of the following members, who had departed this life since the last meeting, would be ready for publication in the regular proceedings of the meeting: Dr. John T. Gilman, Portland, Me.; John J. Halbrook, Keene, N. H,; Dr. Warren Stone, New Orleans, La.; Dr. Robt. J. Farquharson, Iowa; Dr. Willard Parker, New York; Dr. H. Ryan, Colorado City, Tex.; Dr. Elisha Harris, Albany, N. Y.; Prof. S. D. Gross, Philadelphia; Dr. Fred D. Lente, New York; Dr. W. F. Sheehan, Rochester, N. Y.; C. W. Chamberlain, Hartford, Conn.; Gen. John M. Cuyler, U. S. army; Dr. Joseph J. Woodward, U. S. army.

This completed the business portion of the Conference and the reading of papers was proceeded with. The first was on the "Squalid Dwellings of the Poor" and was contributed by Dr. Chas. W. Chancellor, Secretary of the State Board of Health of Maryland. He said the question had a most important bearing upon the public health. It was most important that the public should know the existing state of things and apprehend the hazard and risk which was involved by their continuance. If an investigation could be made of the unsanitary condition of the dwellings of the poor in the large cities of America, it would reveal a frightful picture of vice and misery. Little had been done to improve the condition of the dwellings of the poor. Science had yet done little to improve their condition. It was well known that the lower classes were much given to intemperance. There was no real reason for that, unless it was that the sense of their misery superinduced the diseased craving for stimulants. It would be well if social reformers would regard intemperance from that point of view, as it was quite certain that the misery and squalor of

the poor was largely the cause of intemperance amongst them. The great industrial classes of the country were entitled to protection, both as regarded their health and their avocations. Therefore it was necessary that there should be vigorously administered laws for the protection of the health of every citizen,and especially over the health and industrial population should every safeguard be placed. A nation such as this, with 55,000,000 of people and vast manufacturing, industrial and agricultural interests, should protect the health of its citizens most adequately, as disease paralyzes labor and wastes capital. It should be the primary object of every intelligent Government to prevent disease and to preserve the health and lives of its citizens, and to maintain its whole people in a condition of the highest efficiency for the labors of peace and the struggles of war. Though social reform was in the air, never before was the misery of the poor more intense and their conditions of life more hopeless than at the present time. The courts and alleys of our crowded cities present spectacles of squalor which are a disgrace to civilization, and which ought to arouse the public to the need for a reform.

As to the means for remedying the evil,Mr. Joseph Chamberlain, a member of the English Cabinet, went to the root of the matter, and spoke out with uncompromising plainness when he said that the authorities should proceed on the assumption that houses which were unfit for habitation should be declared public nuisances, and the authorities empowered to compel the owners to put them in proper condition, or require them to be closed or demolished. It was certain that much more was capable of being done than had yet been undertaken. The owners of miserable dens which existed in many cities should be compelled to put them in good sanitary condition. Overcrowding should be strictly prohibited under a heavy penalty, and houses used for crime at once closed and the re-establishment of similar houses elsewhere in the cities prevented by the due enforcement of proper regulations. To that purpose the municipal authority ought to have the hearty co-operation and consistent support of public opinion. When it was necessary to purchase unsanitary houses to effect public improvements the authorities should be compelled to pay only a price commensurate with the letting value of the property for legitimate purposes and not the added value in consequence of the owners winking at the use of their property for illegal and immoral purposes or the consequence of their property being overcrowded and let to more persons than it was capable of properly accommodating. In conclusion, Dr. Chancellor urged that local authorities should be clothed with powers enabling them to successfully grapple with the evils of overcrowding and the evils arising from the occupation of unsanitary dwellings.

Maj. Samuel A. Robinson, Inspector of Plumbing of the District of Columbia, followed with a paper on "The Hygiene of the Habitations of the Poor." It was full of practical suggestions with regard to the building of dwellings, and particularly with regard to their drainage and ventilation. To begin with, he urged that municipalities should have the power to prohibit the erection of a dwelling house on a damp site until it had been thoroughly drained and a course of cement laid to prevent the rise of ground air. The authorities should insist that all water closets had flushing tanks and efficient flushing traps. All fixtures having connections with the drains should be exposed, and water closets and sinks should not be boxed in. Cast iron and other ware should be abandoned in favor of delf wares, and in every case the simplest and less complicated systems of closets should be used. The simplest were always the most reliable. Ashes and refuse of all kinds should be removed by one contractor, where it was possible,as the most stringent regulations could then be enforced as to their frequent and prompt removal. In tenement dwellings attention should be most carefully given to ventilation and light, to the isolation of the families, to the water-closet and the water supply, and, as far as possible, use of deleterious wall-paper should be prevented. It was the duty of every municipality to exercise as much care continuously with regard to the sanitary condition of the town as though cholera or yellow fever were actually in their midst and carrying off their victims daily. He alluded to the success attending the erection of the Peabody and other model dwellings in London, and said, as a result of the regard to sanitary conditions which had been observed in the erection of those buildings, the mortality amongst the occupants of them was lower than the rate of mortality in London generally, and lower than among the residents in the houses in the better parts of that great city. There had not been a single case of typhus fever among the adults living in the model dwellings. That showed the importance of every attention being paid to sanitary matters, and until the sanitary condition of the poor was improved he asserted that the work of the

clergyman and the work of the schoolmaster would all be in vain.

"The Sanitary Survey of a House," by Wm. K. Newton, M. D., health officer of the city of Paterson, N. J., was a narration of the method in vogue in that city for the determination of the relative sanitary qualities of any house. Health officers were given blanks on which certain questions and directions were printed, giving the necessary qualifications of a perfect house. The degree of sanitary excellence was made up from the reports of officers, who would cross off the qualities a building did not possess and allow those it did to remain. The first thing to be considered was the street on which the house was situated. Was it wide allowing a free current of air to circulate, or narrow; well kept, or in bad condition; clean or dirty? Streets paved, how? Which way does the house face—north, south, east or west? (In order to ascertain whether it received much or little sunshine.) Were trees in front of the house? (Trees would be a blessing in a wide street, tempering the rays of the sun, but in a narrow street they would cause disease by obstructing the rays of the sun and making the front rooms damp and unhealthy.) The next point of interest was the yard. Notice whether garbage is allowed to accumulate; the water supply, and whether there are any sources of contamination; whether domestic animals are allowed in the yard. Then go into the house, visit the cellar and see whether the foundation is of stone, brick or rubble. The ventilation of a house, method of heating, plumbing (especially leaks in the same) should all be examined carefully. The population of a house, number of families living in it, number in each family, number above five years of age, and the number of rooms to each family, are very important data.

The informal discussion of the above papers was participated in by Drs. Hunt, Johnson and Maj. Robinson. Mr. Brooks said he had lots of experience with plumbers, and thought there must be some special place hereafter for them. The city of New York requires all plumbers to be licensed, and none but a qualified plumber is allowed to conduct a business. The law was fought bitterly by the plumbers, but now, after three years' trial, all are warmly in its favor. Plumbers ought to be licensed as well as doctors, and more men were killed by bad plumbing than by bad doctors, and as many saved by good plumbing as by good doctors. In the country the custom is (a bad custom) to place the closet as near to the well as possible.

Drs. Reed of Ohio, Bell of New York, Fee of Kansas City, Raymond of Brooklyn, Briggs of St. Louis, Devron of New Orleans, Bryce of Toronto, and Cook of Nashville, delivered brief addresses on the papers.

The first of the second series was by Prof. George H. Rohé, of Baltimore, on "The Hygiene of Occupations." He prefaced his remarks by alluding to the paucity of literature and statistics in reference to the subject, and then proceeded todeal with the statistics on the subject prepared at the instance of the Massachusetts Legislature, which cover the 31 years and 8 months between May 1, 1843, and December 31, 1874. The total number of deaths during that period was 144,954, and the average age of each individual 50.9 years. The list was divided into ten classes, and showed that of the total number of deaths 21,832 were cultivators of the soil, with an average age of 65.29 years; active mechanics abroad, 10,093, with an average age of 56.17; active mechanics in shops, 16,576, with an average age of 47.57; less active mechanics in shops, 17,233, with an average of 43.87; laborers, 28,058, with an average life of 47.41; men employed on the ocean, 8,044, average age 46.44; merchants, financiers and agents, 15.-965, with an average of 48.95 years; professional men, 5,175, with an average length of life of 50.81, and females, 3,343, with an average of 39.17 years. These figures showed that cultivators of the soil and brain workers had good expectations for long life. Dealing with the various occupations and their influences on the health of those engaged in them, he said those engaged in the manufacture of chlorinated lime were subject to chronic chlorine poisoning. Persons engaged in the vulcanization of India rubber were very much troubled with pneumonia, and had a predisposition to rapidly succumb to consumption. Lead-workers suffered from poisoning, and painters were especially liable to the same disease. Mirror-makers, fulminate-makers, hatters and others inhaling dust were liable to consumption, and brass workers to a peculiar disease termed brass founders' ague.

Stone-cutters in Germany live to the average age of 36 3–100 years, but the figures showed that in this country the average length of life was 40 90–100 years. Rag and wool sorters were liable to a peculiar disease, which was probably anthrax. The average life of millers, according to Hirt, was 45 1–10, but according to the Massachusetts figures, 57 14-100. Workmen in grain elevators suffered from catarrh, and brush-makers were peculiarly liable to phthisis. Firemen on

steamers suffered from pulmonary diseases and from heart disease. Statistics showed that brain-workers had higher expectations of life than any other class of men. In conclusion, Prof. Rohé suggested that the association should appoint a committee to consider the question of the effects on health of the various avocations and that, each member should give the result of his researches at their annual meetings.

Dr. Adolf Alt, St. Louis Mo., editor of the American Journal of Ophthalmology, read a paper entitled "Protective Spectacles for Workingmen," in which he showed the danger that existed constantly of chips flying off and striking the eye of the employe. The doctor mentioned the effects that would follow if a chip entered different parts of the eye and showed that very often total loss of the eye followed. The agony caused a wounded man by the efforts of fellow workmen to extract the chip were also commented upon. It is often the case that by sympathetic ophthalmia the other eye is lost also, and families are thus left without the means of support. This sympathetic ophthalmia occurred in many cases where the injured and entirely useless eye was not removed; the wife most strenuously objected to such operation being performed on the husband, until by sympathetic action the other eye was lost also. Mica spectacles would remedy all this, and had greatly reduced the liability in Germany, where they are in common use. Dr. Alt said employers should be made to pay all damages arising in cases where they did not insist on their workingmen wearing spectacles.

Dr. C. Curtman, of the Missouri Medical College, read a paper devoted to the discussion of

"Heating and Ventilation."

He considered the philosophy of heating and ventilation and then proceeded to mention the various modes in general use. Hearths, stoves, steam pieps, water pipes, hot air, porcelain ovens and other devices were all thoroughly examined with relation to their economic and sanitary value. The defects in each were alluded to with the best way to remedy them, and the hot air method was selected by the reader as being of the most utility.

A paper entitled "The Sanitary Management of Cars and Stations," in the absence of the author, Acting Assistant Surgeon, W. Thornton Parker, U. S. A., Fort Union, N. M., was read by Dr. Conn. The article treated on the dangers of the present syssem of passenger traffic on all railroads whereby healthy persons were brought into close contact with people suffering or just recovering from contagious diseases, often of the most virulent type. The remedy for this danger was a system of sanitation on all large railroads and the general introduction of hospital cars.

The concluding papers were warmly discussed by various members, after which the meeting adjourned until 8 P. M.

Evening Session.

At 8 o'clock P. M. the convention again assembled and after a couple of selections from the orchestra, Mr. George W. Parker, president of the City Council and chairman of the Reception Committee, arose and stated that he was not there to speak, but to introduce those who were to speak. He then introduced to the convention Mayor Ewing.

Mayor Ewing said:

"Mr. President, Ladies and Gentlemen—There can be no topic for consideration more important to humanity than that of health, and the sanitary measures to be adopted and prosecuted for its preservation. These topics have become an important factor in the discussions and reports of the sanitary organizations of the civilized world. Not only have cities and states of the Union regularly constituted bodies for sanitary conference and work, but the federal government lends the power of its influence and material aid, as well as the experience and personal co-operation of the sanitary scientists connected therewith, for the furtherance of the purposes to be attained. Thus through intelligent conferences, and an exchange of positive experience, a general knowledge may be acquired, and definite plans for a general sanitary system may be consummated.

"This national association, in their praiseworthy efforts to fulfill their mission and perfect the details so important to the proper conduct of their labors, exert an influence which is felt throughout the country, and the proceedings of this annual convention will be carefully considered by all who have a proper appreciation of the great importance of the matter committed to your charge. The people of St. Louis welcome you, and I am gratified to have been commissioned by the committee in thus expressing to you the kindly feelings with which they will receive you, and every endeavor will be made to render your stay in our city a pleasure, as well as a season of the interchange of profitable experiences."

Mr. Parker then introduced to the convention Gov. Crittenden. The governor said it afforded him great pleasure, representing the people of this great state, to welcome the delegates to Missouri.

He spoke of the importance of the labors of

the convention to the people of the state. They were not restricted by any ethics. He did not want to reflect on many reputable physicians who were bound by ethics, but the scientists' society had broader views than any school of ethics. Any saw-bone might amputate a limb, and they never missed an opportunity. This society, however, discussed matters regarding the public health. Many poor people lived in illy-ventilated rooms, and these people and their children were entitled to the best efforts of the people to care for their health. What means should be adopted in order to have immunity from infectious diseases? Should Asiatic cholera visit this country next season, as is feared, the importance of the scientists' discussions could not be overestimated. In time of peace prepare for war. He then spoke of the brave act of King Humbert, of Italy, in the plague-stricken city of Naples, where he buried the dead, comforted the dying and exhorted fugitives to return to their homes and their people. His example and remarks had the effect of making the people return and give battle to the dread disease. The speaker said that while they might not be able to prevent cholera or any other disease, they could divest it of many of its dreads. He was sure that when he bade the delegates welcome he voiced the feelings of everybody on this earth. Two humanitarian conventions were now in session in this city, the one to discuss means of preventing disease and the other to discuss methods of preventing crimes and vices. How glorious it was to have two such conventions running at one time in one city? The investigations of the great men of these people became common property. Men who made discoveries in this way and gave them to the world were greater heroes than Napoleon and such men. The convention came to them as the Good Samaritan, instructing them so that they could avoid their dangers. A few years ago, when a scourge was sweeping over the country, their efforts had arrested its progress. A dreaded scourge was now visiting the people on the other side of the water, but their coadjutors over there were no less active in their efforts to prevent the spread of this terrible disease. Some years ago when the South was afflicted a young doctor of this city gave up his life in his efforts to save the people in that section from the dreaded scourge. The governor closed by again bidding the delegates a warm welcome to the state.

Mr. Parker said he regretted to announce that Dr. Eliot, who was down to address the meeting, was too ill to be present himself, but the doctor had sent his son to read the paper he was to have delivered. Young Mr. Eliot said his father intended up to a few hours previous to be present, notwithstanding the poor condition of his health, but at the last moment had decided not to, and sent him there to read the address. The speaker then read the address. In it Dr. Eliot expressed his sympathies with the labors of the association. The work of the convention was of the greatest importance. Cleanliness was next to godliness. In the illy-ventilated houses of the poor sobriety soon gave way to drunkenness. Perhaps no city in the union had experienced more good from improved sanitary regulations than St. Louis. As he remembered it in 1820 there was hardly a dry cellar in the city. It was no wonder then that Asiatic cholera took a firm hold here in 1849. The death list ran up to 1,200 in a single week during the scourge and this in a population of only 50,000. The dying were cared for and the dead properly buried. A fire broke out and it was thought it might relieve the city of the scourge, but it only made matters worse. The city in all its suffering asked no help from abroad, but bore its own burden. The death rate in the early days of the city was very great, but improved sewerage and sanitary measures had made it what it now is, one of the healthiest cities in the world. There was room for improvement, of course, and he hoped the improvements would be made.

Dr. Elisha H. Gregory president of the State Board of Health of Missouri, was introduced, and after a few humorous remarks on the length of his title on the programme, he said:

"Gentlemen of the American Public Health Association—As a representative member of the Missouri state board of health it is my proud privilege to tender you the hospitalities of our state and city. Every movement having for its object sanitation is important to all mankind. Standing in the front rank in this regard is a knowledge of the causes of disease. I never contemplate disease-causation without a sense of humility; the reflection alone comforts me that the difficulties of the subject are simply insuperable. Certainly the greatest minds and the most indomitable industry have been expended upon it with the most unsatisfactory results. Until the causes are known prevention is out of the question. 'Prevention' is the highest ideal of the sanitarian. This

is the lofty purpose of your organization. Therefore we welcome you as philanthropists of no ordinary pretensions,and as votaries whose aim is so exalted that the object proposed cannot be accomplished till all the possibilities of science have been attained. Again, with the assurance of a hearty welcome, coupled with the hope that the deliberations of the meeting may be equal to your most sanguine expectations, God speed the good work."

Dr. Albert L. Gihon then delivered the opening address, taking for his subject' "The Sanitary Responsibilities of the Citizen."

SECOND DAY.

The morning session of the Public Health Association was called to order promptly at half past nine, President Gihon in the chair. Dr. Homan, from the committee of arrangements, reported that carriages would leave the Southern at 7:15 in the evening, take the members through the illuminated streets and return them to the hall at 8:15. Col. Isaac Cook extended to the members an invitation to visit his wine cellars at Thirtieth street and Cass avenue. The secretary of the Fair Association invited the members to visit the grounds any time during the week.

The following were then elected members: Dr. J. J. Green, of Board of Health, Pittsburg; Dr. J.W. Craig, member State Sanitary Association, Mansfield, Ohio; Dr. H. F. Hoyt, St. Paul; Dr. T. Griswold Comstock, St. Louis, Mo.; Dr. S. C. Johnson, Hudson, Wis.; Dr. B. O. Reynolds, Lake Geneva, Wis.; Shipper Wallace, Burlington, N. J.; H. C. Townsend, St. Louis; Dr. T. B. Lerter, Kansas City; Dr. G. Hurt, St. Louis; Dr. E. H. Gregory, St. Louis; Wm. J. Evans, New York; Prof. L. Eddy, Danville, Ky; Dr. G. M. Cox, Springfield, Mo.; Dr. J. C. Hearne; Hannibal; Dr. H. F. Hereford, Kansas City, and Dr. A. Merrell, St. Louis.

Dr. Homan, from the committee on compulsory vaccination, reported that owing to the complete report of last year the committee would not make any additional report.

Dr. Gihon then read a paper written by Dr. Stephen O. Richey of Washington, entitled "The Hygiene of Eyesight of School Children." The paper said myopia was gradually increasing in America and some decided steps would have to be taken in the near future. It was just as bad to overstrain the eyes as to dissipate in any way—by excess of eating or drinking. We should not be profligate in study more than in anything else. A large portion of the children of this country are myopic, and in Hanover there is 94 per cent of near-sightedness in the highest class. Agnew examined 1,000 students and found that the ratio of myopia increased with the grades. At Polytechnic institute in Brooklyn the percentage was ten per cent in the lowest class and sixteen per cent in the highest. The tendency of eyes doing necessary work in school is toward myopia. Constant labor for five hours at a time, with poor light and bad position, with a slight uncorrected refraction, are some of the causes. A remedy was proposed of not allowing the children to attend school until the period of second dentition, and the time apparently lost could easily be made up. The suggestion to examine the eyes of all school children every six months was a good one, as progressive myopia could easily be avoided. The substitution of pen and paper for slate and pencil, of the slanting system of penmanship for the upright system, have been discussed favorably and adversely. The author thought the greatest danger was not in writing, but in reading; the strain upon the eyes from reading the same kind of print for many hours was very bad.

The report of the committee on "School Hygiene" next followed, Prof. D. A. Sargeant of Harvard university being the author. Circulars should be sent to the school teachers throughout the country to obtain information on the subject of school hygiene. The report was accepted, and the committee increase to seven was allowed to stand.

"Cotton-Seed Oil as Food," by Prof. Chas. E. Monroe, of the U. S. Naval Academy, Annapolis, Md., was read by Dr. Beugless of Brooklyn. Considerable cotton-seed oil is, some people assert, frequently shipped to olive oil countries and then reshipped to this country as genuine olive oil. The question of wholesomeness of cotton-seed oil is an important one, since the oil has wide-spread use under other names. The profits of the trade in cotton-seed oil among the poor are enormous, and the question of cotton-seed oil as an article of food should be examined.

"School Hygiene," by Dr. Felix Formento, New Orleans, a very interesting paper, followed next. Within the past twenty years philanthropists have made many efforts in the direction of improving school hygiene. Societies for the protection of children have been founded in all cities of America, and in France tracts are distributed, on the subject, to all persons registering the birth of a child. Many accidental deaths are thus prevented. The London schools, and most other European schools, are excellently organized, the appropriation for public instruction in England being about $30,000,000. In France much

progress has been made in education since the revolution, 135,000,000 francs being devoted to primary education. In Italy and all other countries of Europe, the same liberality prevails. In our country education is left to individual states, and national aid is not encouraged. In New York four and a half millions are annually spent, and compulsory education law requires fourteen weeks school attendance at least. But all these are of little avail without school hygiene. Is it not as necessary to teach your child the road to health as to fortune? The latter often depends upon the other. Physical development should precede mental; *mens sana in corpore sano*, was the correct motto. Vicious attitudes, crowded and badly ventilated rooms, poorly printed books, the system of over-study, so much practiced at present, produce baneful effects, all of which might be avoided. The school-house should be as small as possible, and removed from cemeteries, factories and places of amusement and immorality. The school-yard should be as large as possible, a separate division for boys and girls, and there should not be more than forty pupils in each room. The room should be rectangular, ceilings high, windows tall and heat should be moderated; the walls should be unpapered, the colors of ceiling and walls should be carefully studied; the flooring cemented or made of hard, polished wood. Spitting should be absolutely prohibited, as certain contagious diseases may thus be transmitted. Coughing should also be prevented, and the air should be constantly renewed at short intervals. The heating requires special attention, and closets are often foci of disease and should be carefully watched. Typhoid fever and diphtheria are often caused by uncleanliness in this respect. The return to school of children suffering from contagious diseases should be closely guarded; benches, desks and other school furniture should occupy our closest attention. Twelve thousand nine hundred and sixty hours are occupied by children on school benches and curvature of spine and myopia are caused by wrong positions. Benches should be washed, should be wide and have a back; lids of desks should be movable and be inclined; hat-racks should not be indiscriminately used for all children. Proper attitudes for all should be enforced; they should not be allowed to lean forward in reading and writing, and the object should be held at least twelve inches from the face.

The child should sit squarely at the desk; early rising and early going to bed should be enjoined. Myopia is caused by badly printed books, faulty attitudes, long hours of study without intermission and poor light. Calisthenics or gymnastics are now introduced in most private institutions and should be made compulsory in public schools and both boys and girls should be made to participate. The exercises should take place as far as possible in the open air or in a well-ventilated room. A well regulated system of gymnastics should never produce fatigue or exhaustion. The children should be taught elementary notions of hygiene. Few schools, however, possess chairs of hygiene, and in only eleven states are courses in hygiene given in schools or colleges. Yet hygiene is, perhaps, the most important of all sciences. Sanitary relations are looked upon as absurd and tyrannical, but unnecessarily so. Public lectures on hygiene are not enough—the school children must be given a hygienic knowledge and much disease might thereby be avoided. Hygiene should be taught in the primary schools in a concise manner and afterwards enlarged upon, and boys and girls should both be taught. Hygienic instruction should, if possible, be given by a medical instructor, but so many text-books are now in existence that the matter is much simplified. Special sanitary inspection of all schools should be made at least twice a month, as schools may be the cause of much disease. Plans for school buildings should be submitted to building inspectors, to see whether hygienic requirements have been followed. Medical inspectors should see that all of the defects above mentioned are obviated. Monthly reports of the diseases among the school children of each district should be submitted. School programme of study is the most important part of the question. The curriculum of primary schools is too complicated, school hours are too long without sufficient intermission and the method of teaching is too abstract. Children cannot concentrate their attention for a long time on study, and the hours should be graded according to age. Excessive nervous strain should be avoided, especially in the young. Young children have an extraordinary facility for learning language without understanding the grammatical construction. The necessity of short intermissions is absolute in order to avoid cerebral lassitude. The number of school hours varies from twenty-eight to forty hours a week in different countries, and the best system is in Belgium, where the hours are regulated according to age. Home study is prohibited for the very young, and limited to a few hours for the older scholars. Cerebral lassitude can be relieved by proper sleep, a six-year-old child requiring at least ten hours sleep. Recess, hot lunch and gymnastic ex-

ercises, drawing, singing and reading aloud are all good exercises. Vacation at intervals should be insisted upon for both pupils and teachers. The following table is similar to that used in Belgium, and has also been adopted recently in London:

	7 to 8 yrs.		9 to 10 yrs.		11 to 12 yrs.	
	B.	G.	B.	G.	B.	G.
Branches of study.	Hrs.		Hrs.		Hrs.	
Mother tongue, - -	5	5	9	8	10	9
Writing, - - - -	3	3	3	3	3	3
History & Geography,	1	1	2	2	2	2
Hygiene & Philosophy,	1	1	2	2	2	2
Natural science, - -	1	0	1	1	2	2
Arithmetic, - - -	3	2	3	2	3	2
Foreign language, -	3	3	3	3	3	3
Drawing, - - - -	1	1	1	1	1	1
Singing. - - - -	1	1	1	1	1	1
Needlework, - - -	0	2	0	2	0	2
Gymnastics and Recreation, - - -	5	5	5	5	5	5
Total hours per week of 5 days, - - -	24	24	30	30	32	32

Dr. E. S. Elder, secretary of the State Board of Health of Indiana, read a paper called "The Sanitary Survey of the School Houses of Indiana." The system of Indiana is a pride to the people of that State; but it was found that many defects existed in the 10,000 school houses of the State. Circulars were sent to all school teachers throughout the State and very suggestive reports were received in return. Most of the school houses are at least seven years old, and nearly seven-tenths of the school house grounds are too small, being less than one acre. All thoughtful persons will see the necessity of having school yards fenced, yet reports proved that 47 per cent are not fenced. Few are drained, underdraining was entirely wanting, and in 14 per cent large pools of stagnant water are allowed to accumulate. Thirty per cent of the Indiana school houses have no proper means of ventilation. Of the stoves in use for heating purposes 17 per cent are out of order, thus endangering the lives of the children. The stoves are generally in the centre of the room, and those near them suffer from excessive heat and those distant from excessive cold. Wrongly placed black boards, bad windows, and impure water supply are causes of great trouble. Twelve per cent of school houses depend on ditches for water supply, and many of the wells are polluted with the bodies of dead animals, with drains from cess-pools, grave yards, etc. Closets are also usually very badly arranged. Vaccination was a most important feature, and no child should be allowed to enter a school without being successfully vaccinated, and in Indianapolis, where the rule is enforced, not a child was ever attacked by small-pox, but in 12 per cent of the schools no law against contagious diseases was enforced. The requirement of doors swinging outward is seldom insisted upon, and in fact most country school houses are flat square boxes, located on land too poor to be used for farming or anything else. A few weeks ago a statement was made in New York that three thousand children in that State lost their lives on account of faulty hygiene. The education in hygiene cannot be effected by the present literary course, and in schools around universities even there was the most flagrant disregard of common requirements of health. The schools of Indiana are in a better hygienic condition than ever before, and, dark as is the picture presented by the survey it is certain that the same state of affairs exists in all adjoining commonwealths. We should endeavor to remedy the grosser evils first and depend upon hygiene for improved results.

DISCUSSION.

Dr. Raymond of Brooklyn opened the informal discussion of the papers. He said too much attention was paid to the public and too little to the private schools. One trouble is that private dwellings are often used as schools, and contagious diseases arising in the family are suppressed, because the publication of the matter would close the schools. The same danger exists in public schools where janitors live in the building. A rule ought to be made prohibiting any person from living in the buildings used as schools. No child in Brooklyn, recovered from any contagious disease, is allowed to return to school without a health permit from the proper sanitary officer.

Hon. Erastus Brooks of New York said sanitary education was just as important as mental education. Seven millions of children attend the schools of our 38 states and territories, and 224,000 teachers, irrespective of private schools. In New York there are 11,000 school districts and the same number of schools, and a much larger number of teachers. Nothing could, therefore, be of more importance than a discussion of school matters. The state of affairs in Indiana is perhaps no worse than that in other states; four years ago some schools in New York were fully as bad as those in Indiana. One trouble is that school commissioners are strong politicians.

Dr. Thompson of Kentucky said that he had never seen a school-house ventilated as it

should be in Indiana, New York or Kentucky. Children are crowded into school-rooms, tortured by teachers, and such conduct sanctioned by parents. Children are often murdered in large towns by having to climb steps four or five times a day. Tall school-houses are the worst evils in the world, especially to girls, and the ill-effects are felt through life.

Dr. Reed of Ohio said he listened to the papers with intense interest. He painted some of the evils of country schools in Ohio; low ceilings, poor windows, water derived from a well near which animals made themselves perfectly at home—nothing to prevent disease from breaking out. Owing to the terrible state of affairs in a state school he thought the mumps broke out once and he was the first to catch the disease.

Dr. Gihon indorsed the views of Dr. Thompson. He never entered a school room but he detected the mawkish odor of overcrowding. He remedied the matter by admitting fresh air without creating a draft. The injury done by bad printing has not been overestimated. Most of the reading of books is done at home by poor gas light, hence all home studying should be interdicted.

Dr. J. H. Bryce of Toronto said that when the schools of his city were well ventilated, disease diminished. Fifty per cent. of sickness reported in Hamilton was caused by colds—caused by bad air.

Rev. Dr. Jacokes, Pontiac, Mich., said he never lived in a house unless he could get a sufficiency of good air.

Robt. Moore of St. Louis introduced Mr. Lyndon A. Smith of Washington, who spoke briefly on the subject. He said Prof. Packard of the bureau of education was preparing a series of questions to be sent to all school teachers of the country on the subject of school hygiene. Questions with regard to rooms, building, lighting, sunlight, climate and other essential points were included.

Dr. G. P. Conn of Concord, N. H., had but a few words to add, and no theory to advance. It seemed strange to him that all who had spoken had forgotten that oral teaching is the best manner of reaching the pupil. If we could have less study and more of recitation we would have less ill-health among the little ones who go to the schools.

Dr. Wm. Bailey of Louisville, said many little things are necessary to the comfort of children in the school-room. The child should not be allowed to come through wet and rain, and to sit for hours with cold feet and body. But we should not feel discouraged at the little progress we have made thus far. One does not find all medical men even who observe hygiene.

Dr. Early of Indiana said the American idea was that the child should be at school from the moment it can begin to toddle. The young child is not physically fit to be cast into the school world; its little brain is not mature enough. Ten years of age was the earliest period at which a child ought to be sent to school. It should be led, not driven, to a point where it absorbs all information. He did not know where a public building, north, south, east or west, is properly ventilated, and that is the cause of the whole trouble.

Dr. Fee of Kansas City said that all papers that have been written on the subject of myopia have had oculists for their authors. Diseases of the brain and eye have not been placed among the causes of myopia, and he protested against it all being set down to poor school-houses. There is not a teacher in St. Louis or Missouri that does not know better than to teach a child in the first or second grade from written or printed copies. There is not a teacher but that has a good idea of hygiene, and he protested against all myopia being charged to school teachers and buildings.

Dr. Gust. Devron of New Orleans said people desired to get rid of their young children and thus save a nurse. The rich wish to get rid of the noise and annoyance of the little ones. When the rich are made to keep the children at home and houses are established where the babies of the poor can be kept during the day, much will have been accomplished. Much fault could also be found with the management of school funds. School boards should be composed of representative men—educators, workingmen and sanitarians.

Dr. Greene of Pennsylvania discussed the inequality of school government in the different states.

Dr. Jas. F. Hibbard of Richmond, Ind., spoke of the pollution of wells and springs by proximity to or contact with cemeteries.

Prof. V. C. Vaughan, M. D., of the State Board of Health of Michigan, read a paper on the "Study of Poisonous Cheese." It is well known that cases of severe illness follow the eating of some cheese, especially in North Germany and America, but in France no such cases are found. In Michigan within the last six months, over 300 cases of cheese-poisoning have been reported. The symptoms produced are dryness of throat, nausea, vomiting, diarrhœa, headache and double vision same symptoms as in gastro-intestinal poisoning. Few cases of cheese poisoning are fatal, six deaths in 343 cases occurring in Holland in 1874, a little over two per cent. Cheese that may be harmful to man may be eaten by

lower animals without danger, and a cat once ate cheese that had poisoned thirty people, but the feline experienced no toxic effect. Coloring cheese with anato may be be looked upon, perhaps, as a justifiable adulteration. Samples of cheese that had poisoned many people indicated the presence of acid, litmus paper turning blue. The indications then were that the poison was caused by chemical agents and not by bacteria. Microscopic examination, however, revealed the presence of a bacillus subtilis which did not affect a cat when injected beneath the skin. Only poisonous cheese violently reddens litmus paper, and this is a test easy of application. Every grocer should try the experiment when he cuts a new cheese. The following are the conclusions:

1. The toxic material in poisonous cheese is a chemical compound soluble in alcohol.

2. The production of this poisonous material is due to the rapid growth of the bacillus subtilis.

3. The difference between poisonous and non-poisonous new cheese is one of degree rather than of nature.

"The Milk Supply of Large Cities," by J. Cheston Harris, M. D., of Philadelphia, was the next paper read. The failure of the wheat crops would be less serious than if the milk supply was cut off. Is it pure or foul; does it carry with it the germs of diphtheria, scarlet-fever and of other diseases? These are the great questions. The profits are so small that the farmer skims the milk in order to get even with the middle-men. Milk kept for forty-eight hours is sold as new, and in 400,000 gallons of milk in New York, 120,000 are water. Swill-fed cows are another cause of impure milk, but the detection of adulteration of milk is so difficult that it is almost impossible to punish the criminals. The adulterations are made by the middle-men through whose hands the milk passes. In 1873 the proportion of the death of children was 48 per cent., in 1883 it was reduced to 40 per cent. Out of 1,000 samples of milk, two-thirds are deficient in cream. Investigation shows that the producers were honest, the large shippers were not to blame, but the middle-men were the adulterators. At least one-fifth of the deaths of children under five years of age are directly traceable to bad milk, so that in 1882 at least 25,000 lives could have been saved had milk been properly inspected. The death list of children in St. Louis last year amounted to 3,500, and at least 700 of these could have been prevented. Dairy companies are good institutions and the shipment in quart glass jars from the farmer direct to the consumer is a good plan. The advanced price is gladly paid by the inhabitants of the city. The jars are carefully sealed and shipped to the city twenty in a box for distribution. The milk must be clean because the dirt would show in the glass jars. In the forty-gallon buckets used by milkmen the filth that accumulates at the bottom is terrible but we cannot see it This dirt must produce intestinal irritation. Each consumer receives exactly a quart of milk with his exact proportion of cream. This system has been a great pecuniary success with the author, and with others in Paris and other cities. The method is very practical, and it is to be hoped that it will be adopted in other cities.

Dr. G. M. Sternberg, U. S. A., opened the informal discussion by approving the conclusions of Prof. Vaughan on the poisonous cheese question.

Dr. B. F. Davenport, milk inspector of Boston, related the difficulties experienced by the authorities in that city in combating the sale of skim milk for whole milk,

Dr. S. W. Abbott, Boston, recounted the twenty-five cases of cheese-poisoning reported in Boston, and said that he was happy that a simple means of detection had at last been found. The symptoms in the case were almost identical with those of cholera morbus.

Dr. J. H. Raymond, of Brooklyn, said he had met with two cases of cheese-poisoning, and thought Dr. Vaughan's test a good one. He thought there were other causes at work affecting infant mortality besides impure milk varying temperature being among them. The dealers and not the middlemen alone, were responsible for adulterations.

Dr. Reed, Ohio found that the cases of cheese poisoning in his State were similar to those of persons sick from eating fermented fruit. The poisoned cheese was over-fermented and not pressed dry, and the speaker was not satisfied that bacteria are the cause of the poisoning. Fermentation, he thought, was at the bottom of the trouble.

Dr. Newton, of Paterson, N. J.. gave a very interesting recital of the efforts of the health inspectors in his own State to secure good milk.

Afternoon Session.

The afternoon session was called to order at 3:30, the business of the afternoon being the report of the conference of State Boards of Health on the subject of cholera.

REPORT ON CHOLERA.

Dr. J. N. McCormack, secretary of the Conference, in reviewing the recent work of the Conference, made the following statement:

"There has been a growing feeling with some of the leading practical sanitarians of this country, for several years, that alongside of the American Public Health Association and working in perfect harmony and conjunction with that body, there was needed some sort of organization by which the health officials, entrusted with the practical administration in the various states of this Union might be brought together for exchange of views and comparison of methods in the line of this work, and to secure co-operation and concert of action between the States on all questions of inter-State quarantine and in the prevention and management of epidemics of too great a magnitude to be dealt with by the health authorities of the individual States. This course seemed the more needful in the last few years in consequence of the failure of the national government to maintain a health service. During the last meeting of this association in Detroit arrangements were made for calling a meeting of representatives from all the State Boards of Health in the Union to meet at Washington, D. C., for conference on this subject. Of the twenty-seven State Boards of Health eighteen sent representatives tothis meeting, and after mature deliberation it was

"Resolved, That there should be a conference of executive officers and other representatives of State Boards of Health during the meetings of the American Public Health Association, and at other times if so desired. All questions shall be determined by vote by states, each state being entitled to one vote. The officers shall be a chairman and a secretary."

"Hon. Erastus Brooks, of New York, was elected chairman and Dr. J. N. McCormack secretary for the ensuing year, and after discussing various questions peculiar to the work of State Boards the conference adjourned to meet at this place.

"On the outbreak of cholera in Europe during the summer, and at the instance of State Boards, the chairman called a meeting at Washington for August 7, especially to consider the means by which the importation of this disease into and its spread in this country might be avoided. The apparent subsidence of the disease in Europe and other reasons induced the postponement of this meeting till this time. At the meeting in this city five other State Boards became members of the conference, giving representation from twenty-three of the twenty-eight organized Boards in the Union, as well as representatives from the provincial board of Ontario and of the Dominion of Canada. The conference has confined the work mainly, so far, to the consideration of the cholera question, and after hearing able papers from various representatives on the various aspects of this subject, has appointed a committee to put in succinct form its views as the best and most practicable methods of combating this disease."

The report submitted stated that it was the sense of the conference that the government should establish quarantine at all sea-ports, and establish and maintain health officers at foreign ports to give telegraphic warning of the approach of contagion or the departure of any vessel suspected of being infected. Intelligence of the approach of all epidemics should be promptly forwarded, It was further recommended that in those European ports where the United States had no consular agencies or in which there was no telegraph service, visiting health officers be appointed; that co-operation with Canadian authorities be encouraged, and it was recommended that congress legislate upon the subject at the coming session. The expenses of the establishment of stations should be borne by the national government as the whole country is interested in the exclusion of infection. Congress has recognized the necessity of national action in yellow fever epidemics and in 1879 appropriated $500,000 for the proper treatment of the plague. Cholera was communicated by persons and merchandise, and when any one was found suffering from the infection they should be isolated. The committee recommended an adjournment until the second Wednesday in December, and that the health authorities present be represented.

The report of the conference was accepted and discussion by states followed.

Discussion by States.

Dr. E. N. Hunt, Trenton, N. J.: The report is an excellent one, but if we have to go before the country we have to do more than is set forth in the report.

Dr. Gust. Devron, New Orleans, informed the assembly what the city of New Orleans would do in case of an epidemic. The city council had already passed a resolution that the Public Health Commissioner should have the power to concentrate his men at any point to fight an epidemic; while no specific fund had been appropriated at present, the city had ample funds at hand when such resources were needed.

Dr. Pinckney Thompson, Henderson, Ky., said a quarantine was one of the hardest things to establish, and harder still to maintain. Every wagonroad and every railroad acted inimically to quarantine. He thought the nation-

al governmeat could alone combat the epidemic by keeping it away from the country, and that no state or municipal body had equal power.

Hon. Erastus Brooks moved that the paper from the conference be printed and sent to the various federal officers, senators and representatives. There were many theories of the causes of cholera, but people were a unit as to its effect. It was the work of the national government to fight it, and of the state boards to aid in the fight. Public attention should therefore be called to the matter, in order to awaken the representatives of the states assembled at Washington. The American quarantine system was unlike the European system as night was unlike day. The system of Europe was brutal, cold-blooded, unnatural and unnecessary; the American system was merely the proper care of persons and goods, possibly infected. There ought to be no prejudice therefore against the quarantine system in vogue in the United States.

Mr. Brooks' motion was unanimously carried.

Dr. Hibbard, Indiana, said there should be a revision of methods of cholera cure in use three years ago. He therefore offered the following resolution:

"Whereas, Within a few years the e has been a large increase in the knowledge of disinfectants, antiseptics, and germicides, both abstract and practicable; and

Whereas, It is important equally for practitioners of medicine, for boards of health and for the general public, that the highest attainments of science in this department of sanitation should be formulated for easy reference by all who need it for practical application, and especially was this desirable in view of the probable visitatation of cholera in the near future; therefore be it

Resolved, By the American Public Health Association that a committee be appointed to examine the subject of disinfectants, antiseptics and germicides in their relations to preventive medicine and sanitation, and that said committee formulate a table of these agents for the information of those interested, the agents to be classified so far as may be deemed advisable according to their specific virtues, facility of application and economy in use."

This resolution having been discussed at some length was referred under the rules to the executive committee.

Reports from states in reference to the State Boards was then called for. Delegates generally reported that they were doing their utmost to place their states in the best possible sanitary condition.

Dr. McCormack announced that in Kentucky they were devoting much attention to the instruction of the people in sanitary subjects, and of school children in the elementary principles of sanitary science.

Dr. S. S. Herrick, of New Orleans, described the quarantine regulations which had been established in Lousiana. With regard to cholera the Board of Health adopted resolutions ordering the detention of vessels from cholera infected ports at the pleasure of the Board.

Dr. C. W. Chancellor of Maryland, said their board had been diligently engaged in the work of placing the state in a good sanitary condition. They had also done a good deal in the direction of educating the people in matters of sanitation and in leading them to believe that there was more virtue in prevention than in cure. They were sanguine that beneficial results would follow this departure.

Dr. G. P. Conn of Concord, N. H., said the state board which he represented had accomplished a good work and had been heartily sustained in its labors by those whom it was intended to benefit—the public.

Dr. E. M. Hunt of New Jersey, lauded the work of his board and observed that on the matter of vital statistics the returns were very satisfactory, except from the large cities where considerable difficulty was experienced in getting returns of births.

Hon. Erastus Brooks of New York, spoke of the necessity of the intervention of some federal power to secure the abatement of nuisances in adjoining states. Chemical works or other manufactories of an objectionable character might exist in New Jersey on the other side of the river which no persuasion from New York would succeed in removing. In New York the State Board sought to effect more by persuasion than coercion.

Delegates from other states also made their reports and the session was adjourned.

[TO BE CONTINUED.]

IS INSANITY INCREASING?—The alarmist views, with regard to insanity, to which from time to time so much prominence is given, are not countenanced by the Commissioners in Lunacy, who state, in their report that an examination of the figures shows that the apparent increase is almost entirely due to the accumulation of chronic cases of the pauper class; and that. judging from the official statistics, the liability to insanity does not seem to have increased.—Brit. Med. Jour.

THE SANITARY RESPONSIBILITIES OF THE CITIZEN.

BY ALBERT L. GIHON, A. M., M. D., PRESIDENT OF THE ASSOCIATION.

An Address Delivered at the Opening of the Twelfth Annual Session of the American Public Health Association at St. Louis. Mo., October 14, 1884.

The child being father to the man, it is not strange there should be many of childhood's traits manifested by its banged and whiskered offspring. As the ordinary juvenile regards his teacher as the arch-enemy of his independence and comfort and pleasure, his adult descendant likewise instinctively rebels when he is told what he must and what he must not do. With the invalid's chuckle of satisfaction, when he throws the physician's potion out the window, as soon as his back is turned, both he and she, for herein there is no inequality in sex, defiantly determine to do the one and not the other.

Conscious, therefore, of the doubtful welcome awaiting any one who performs such ungracious offices, I, somewhat diffidently,assume the task of introducing the body of sanitary teachers I have the honor to represent to a community to whom they are as yet strangers.

It is not difficult to fancy in the mind of each fair woman rebellion predetermined should we venture to assail the established customs of that privileged sex, which delights, so one of themselves asserts, to throw three things away, their time, their money, and their health—whilst he who loves the good things of this life, however unwisely, is perchance too wedded to his idols to shatter them at our mere bidding.

To make the prospective dose still more unpalatable, it is offered to you to-night in the form of a presidential address; but this Association would not deserve its prænomen of American,if it omitted this solemnity. From the stamp collecting societies of little 10-year youngsters, who elect their presidents every four weeks, to that society which constitutes our nation and elects its presiding officer for 4 years,inexorable custom tempers the exultation which fills the male or female breast at being invested with the dignity of being set over, if only the two or three, who are gathered together, by requiring him to deliver a Presidential address.Let it somewhat reconcile you to the infliction that yours is after all the better part.You can close eyes and ears and dream yourselves somewhere else, but the unlucky victim of his own distinction must run the gantlet of the eyes and ears that will not mercifully close.

With a full appreciation, therefore, of your plight as of my own,I promise at the outset not to detain you long,and lest brevity alone be not enough to commend me to your forbearant attention, I promise further, remembering your just finished repast,. not to drag you unwilling over the rugged road of any scientific highway, but to stroll carelessly a short half hour among its pleasanter by-ways.

In fact my predecessors in this chair have left me little else to do than endeavor to convince you that the care of health is as attractive and pleasurable an occupation as can engage a human being. They have told of the good it seeks to accomplish and have portrayed the good it has accomplished. What they have said and others of the members of the Association you will find published in that beautiful series of volumes which, from their inception, by happy forethought,have been made as delectable to the eye as I am confident you will find them entertaining and instructive. I venture little in boasting, that in these four thousand pages, the contributions of men who have identified themselves with the various phases of the sanitary movement in this country, there is not much that is tedious or forbidding.

For ourselves the retrospect of our transactions is not unalloyed with sadness. Names that were read on so many pages in volume after volume are seen no more. Those who greeted us gladly yesterday are not with us to-day. The past year has made sad havoc in our ranks. Five members of the Advisory Council are among the dead:

Elisha Harris of New York, a founder of the Association and one of my esteemed predecessors in this chair, whose ambition sought no prouder surname than Sanitarian;

Charles A. Chamberlain, of Hartford, the indefatigable zealous Secretary of the State Board of Health of Connecticut;

Robert J. Farquharson, of DesMoines, formerly an officer of the Medical Corps of the Navy and since Secretary of the State Board of Health of Iowa;

John Taylor Gilman, M. D., of Portland, Maine, who became a member of the Association in 1873, and

Dr. Hillary Ryan, of Texas, who did not allow the feebleness of age nor the infirmity which killed him at a patient's side to deter him from the wearisome journeys from his distant home to our places of meeting.

Fallen with them in the field of duty are:

Brigadier General John M. Cuyler, an eminent officer of the Medical Corps of the United States Army, and Professor Willard Parker, of New York, who have belonged to the Association since 1873; Prof. Samuel D. Gross, of Philadelphia, and Dr. Frederick D. Lenté, of New York, who joined it only a year later; Dr. Warren Stone, of New Orleans, a member since 1880, and two of the very latest of our recruits, John J. Holbrook, C. E., of New Hampshire, and William F. Sheehan, M. D., Health Officer of the City of Rochester, New York. Inexpressibly sad were the circumstances attending the death of the latter. On the 22d of July he had written to me in his accustomed happy vein, discussing the business of this session, and jocosely questioning wherein he might participate. The same envelope contained a note from his friend Dr. Herriman, advising me of his death soon after his letter had been penned and before it could be posted. This last work of his hands will be cherished by his wife among the dearest souvenirs of her deceased husband. With us remains the mournfully tender reminiscence that the last thought and act of his promising career were of what he might do for this Association. Young, hale and vigorous; intelligent, prosperous and happy; dead with the joy of life in his heart. What sadder episode than this!

One other name must be added to the list of the year's honorable dead—that of Lieutenant Colonel Joseph Janvier Woodward, Surgeon U. S. Army—one of the original and most earnest members of this Association, until the darkness that enshrouded his mental powers shut out the living issues of the world, in which he had borne so active and so meritorious part. The good these men have done will live after them, and the star before their names upon our list of members symbolizes their translation to that firmament of departed intelligence, whence "to give light upon the earth" to those who linger upon it.

All I will attempt this evening will be to convince you that the sanitarian is not a grim-visaged, self-denying, self-tormenting ascetic. If you have come presupposing that the priesthood of Hygeia find pleasure in mortifying the flesh, and making of this fair natural earth a repulsive artificial purgatory, begin at once to undeceive yourselves. The votaries of health eat, drink and are merry, singing the pæans of Apollo, but bearing in mind the Nautch girl's admonition to tune the star neither high nor low.

"The string o'erstretched breaks, and music flies;
The string o'erslack is dumb, and music dies."

From its birth, this Association has carefully avoided committing itself to the indorsement of fanatical extremists, who, with however commendable purpose, annul the good less radical measures accomplish. The zealous colporteur who floods the schools with stories of good little boys and girls who never soiled their clothes, and never snapped and snarled at each other like their brother-brutes, ends only by developing an admiration for the boy who dared be wicked and enjoy himself. The sick man on the hospital cot, craving some mirth-exciting antidote to pain, turns wearily away from Baxter's Saints' Rest, or homilies on the seven cardinal virtues and anathemas upon the seven cardinal sins. Even the Bible, however gaudily labeled and conspicuously placed by every seat in a railway car, remains untouched if a newsboy offers Puck.

The American Public Health Association denounces intemperance in any form and councils temperance in all things. It shows how crime is begotten by sin, and sin begotten by disease, and disease begotten by filth, and filth begotten by ignorance; but it does not seek to dispel ignorance and remove filth and overcome sin and punish crime by manacling the thinking man with irons and binding him with thongs that cut into the flesh, and weight him down from freedom to act. It infringes upon none of his inalienable rights to do with himself what he will, save when his selfish doings in any way affect or concern his neighbors and his offspring. He can dose himself with nostrums until, as Dr. Farquharson stated in the British House of Commons, quoting from the Registrar General's report for 1881, twenty had died from chloral hydrate, eight from chlorodyne, five from Godfrey's cordial and soothing syrups, and fifty-one from other patent medicines, and if the remains are decently interred or, better, cremated, no doctor among us would thwart his effort to rid the world of one more fool. If it had been your idea that the members of this Association have come to preach a holy war against all the indulgences of life, you need have them with you not many days to be undeceived. Let me begin at once to undeceive you.

The Public Health—the health of the community—is only the health of its individual members, and health is only that condition of well-being, well-feeling and well-doing of each man, woman and child, which enables him and her and it to enjoy pleasure, and communicate it to others, to be happy and make others happy. It is our self-appointed office to point out the way that leads to this castle of delight, our self-imposed duty to see that igno-

rance, indifference and inaction do not hinder those who aim to reach this goal.

The sanitarian is the natural guardian and mentor of this mortal body from the moment when two animated wandering microscopic molecules mate and mingle into that one other which is to grow into what you and I are, until fifty, sixty, perhaps a hundred years after its elements are given back to the cosmic storehouse whence they had been borrowed. With that other attribute of man which defies death and the grave he has no concern;nor does he magnify his proper charge by deriding the metaphysics of the theologian nor the latter make men more mindful of their souls by disparaging their bodies. Each of these two great classes of the teachers of humanity has hindered the other, the latter perhaps the more, since the neglect of the body has been the foundation of all the suffering, and sorrow of this mundane existence. And why should this human body be contemned? Is it not the most wonderful mechanism of which the human mind can form conception? Is not its development from a single wriggling monad into the Divine paragon so marvelous that his own intellect can not conceive its how? Is not the rosy, chubby, gleeful child—the thewed and sinewed man—or best of all, she with curves of beauty where he has points of strength, the lovely vision, whom art vainly essays to portray—are not these the most beautiful of all the beautiful sights this world offers or the imagination conjures?

If we have minds that enable us to know ourselves, intellect to reason why we are, sensations to perceive our environment, emotions to link us to our fellow-beings, is it not only because within this corporeal form there is a mass of cells—a structure sound in all its parts, nourished by pure blood, formed from good food and drink and air? Close, one by one, these windows of the soul,out of which it looks upon this world or in upon itself—obliterate vision and hearing and touch and taste and smell, be the tenant within never so great nor grand, he is buried in a tomb that has no exit.

A thing so beautiful, so marvelous, so wonderful that man cannot even imitate its inanimate outlines, this organ of his intellect, ought to command our profoundest admiration and our ever zealous care. Fashioned in the image of the Creator, made but a little lower than the angels, why should we neglect this thing of flesh and blood, and bone and sinew, till its beautiful outlines are marred, its parts jangled, and out of tune, its vigor wasted and prematurely worn, it is only fit for the decay which has been invited? Were there no other motive, that strongest of all human incentives, self-interest, should induce us to care night and day with earnest watchful thought for this living, moving, feeling, thinking body. I am what I am, and if I am to aspire to excellence—to attain the highest possible development—to feel and do and become all that man may be, I can only do it by cultivating, developing, improving and beautifying this thing, which is myself; and this brings me to the a-b-c of all Sanitary Science, that science whose advancement is the prime object of this Association. The first step towards the improvement of the Public Health is the physical purification of the individual. Teach him to care for his own bodily welfare in childhood, in youth, in adult life. The one foul center soils in a hundred tangents. Only healthy parents can engender healthy offspring. Only healthy children can grow to healthy men and women by being properly clothed, fed and nurtured, and these can only remain such by keeping at bay the warring enemy of disease. The bravery of the army is but the bravery of each soldier, the sound sanitary condition of the community only the sum of the cleanliness and vigor and salubrity of each of its constituent members.

These are such simple and self-evident truths that it seems idle to present them; yet these are the only problems we have to propound. There is no mystery, no mysticism in our philosophy. The topics we have selected for our annual programme mean only this: the hygiene of the household and of the school, of the householder and his children, how to secure wholesome food and pure water, in what way to remove the waste that becomes filth and breeds disease. This is all there is of it.

Fellow-citizens of St. Louis,this Association comes here in the hope of awakening in you that interest in your own welfare which you have no right to disregard, if not for your own sakes, at least for the sake of your children, and for the sake of the community of which you are a part. Scarcely one of you but has suffered some sad bereavement. Do you realize that quite half the deaths that are happening around and among you need not have happened, that these neighbors and relatives have died from diseases due to preventable causes, diseases which this and kindred Associations, State and Municipal Boards of Health,are aiming to make no longer possible? In Russia, where sanitary neglect is proverbial, the average duration of life is only twenty-six years, over sixty in every hundred children dying before they are five years old.Even

in the United States almost half the dead, forty per centum, are children who have not passed their fifth year of age. The total mortality reported in the census of 1880 was 756,-893, among which were 8,772 deaths from measles, 16,416 from scarlet fever, 22,905 from enteric fever,65,565 from diarrheal diseases—all preventable, but these not all the preventable maladies.

Knowing this, do you think each and every one of you, that you have done your duty, your whole duty to yourselves and your children and your neighbor,in preventing as much as possible these untimely deaths?

First, do you live in a house that is properly drained of its sepage? Do you know this to be so of your own knowledge? Have you taken the trouble to see with your own eyes, or with the eyes of some competent and responsible inspector that the joints are hermetically sealed, that the earthen soil pipes are not deflected, and cracked or perforated by rootlets, that the outlets are securely trapped, the sewers unobstructed, flushed clean and ventilated? Is there a pool of fecal matter under your cemented cellar-floor? Does the polluted sewer-air, shut off perhaps from your bed-rooms,find its way through some neglected or unthought of kitchen-sink or some plumber's ingenious labor-saving overflow and permeate every part of your beautiful home? If you have not this assurance and your wife or your child die from typhoid, from diphtheria, from scarlet-fever, then let your conscience say to you as Nathan said unto David, "Thou art the man. The evil that has arisen against thee in thine own house be on thine own head." Do not, e a wealthy friend of mine,whom I met at a summer-resort where he was seeking to recuperate the health of his wife and himself from a sickness they had shared with the child,who died, sit down and wring your hands and bemoan your let when, as in his case, a windowless, unventilated closet, most convenient to the luxurious chambers of his Philadelphia palace, had made it a viler habitation than the peasant's well-ereviced hovel or the frontierman's open-sided log-cabin.

Again, thou merchant, thou banker, thou learned judge and reverend divine, and thou, too, oh sapient doctor of St. Louis, is this milk, real milk your children are drinking? this sugar, only sugar they are eating? Is it butter, honest butter of the churn and not of the laboratory they are spreading upon their bread? and is that bread of flour or of chalk and alum and starch and what not else? Are your bakers, butchers and dairymen honorable men, whom it is superrogatory to suspect and whom you therefore never question, neither yourself nor the well-paid, intelligent, skillful inspectors, whom you have employed to do this questioning, and to see that no tainted and diseased meat, no immature and decayed vegetables, no pernicious or adulterated groceries are offered for sale,nor even brought within the limits of your fair city?

But bread and meat, fruit and vegetables, food and drink may all be good and wholesome, and still by your culpable, criminal carelessness you may deliberately admit into your bodies an impurity that is fouler than all others. Since the Lord God formed man of the dust of the ground and breathed into his nostrils the breath of life and man became a living soul, that breath of life has been to him the one essential of his living. He can wallow in filth, I will not say like swine, for properly conducted swine do not. He can feed upon offal, go naked and hungry and wild, drink from slimy pools, and sleep on a bed of rock, or make his lair in reeking jungles,and yet live; but deprive him of air, he dies; poison that air, he becomes diseased. Bountiful nature supplies him without cost of labor or thought with this great need of existence. A boundless ocean surrounds and permeates him. Foul it, it purifies itself. Only when the devilish ingenuity of man thwarts nature's efforts, cribs, cabins and confines it, does it retain the poison he has added.

Citizens of St. Louis, are you this devil's handiworkers? Do you immure yourselves and your children in houses where foul air has no exit and pure air no entrance?

Do you do all you can besides breathing into it and adding to it the effete exhalation of your bodies to befoul it by sewer, and coal and illuminating gas and hot-air furnaces?

Do you congregate in churches to hear the word that is to save your souls and implant in your lungs the seeds of malign growth that will destroy your bodies?

Do you go to theaters to be made merry and come away with cause for tears? Are you sure that here to-night the air around us is not full of abominations, that only need be made visible to cause you to rush pell-me out doors?

Are you weary with my catechising? One question more. Do you go to school with your child? Do you ever ponder why it does not eat; why its face is wan, its shoulders rounded, its form bent, its gait tottering, its sight bleared? Why it is petulant and peevish and perverse? Why it talks and walks in its sleep, sees ghosts, or does not sleep at all? Have you ever worn the magic ring of Mr. Bultitude and put your intelligence in the childish form and breathed the vitiated school-

room atmosphere it breathes, sat on the racking benches, in the blinding glare, sniffed the latrines that even dogs shun, and then with glad, grateful hearts,boasted how much grander are the education and civilization of the nineteenth century than when unkempt teachers taught in the open air under the shade of a green tree?

I have not, however, come here to arraign you as especially guilty of high sanitary crimes and misdemeanors. All and more that I have hinted to you of the things you have done which you ought not to have done, and especially of those you have left undone, which should have been done with all your heart and mind and spirit, may be charged against that staid city of culture where the cradle of American Medicine was rocked by Quaker matrons. In the very heart of that city, rather in its head,under the shadow of the Temple of Liberty, where the brightest minds among its fathers and sons daily win forensic laurels,one has to pick one's way through reeking pools of fetid ooze concealing the cobblestones until partially swept into stinking masses by decrepit laborers with unwieldy brooms;little heaps of filth that lay till they roll back to a level or are carried into the sewers to fester underground and generate the sickening odor that arises from every street inlet. It is the fashion to ridicule the unprogressive Spaniard, who, at the gates of Madrid ploughs the field with a crooked stick as his ancestors did centuries ago,yet here intelligent men daily witness this farce of street-cleaning, this tragedy of street-pollution at their very doors, and hold their peace, each hoping to escape, yet escaping only as he who has trodden blindfold over red-hot plough-shares.

What shall we do to be saved? we, who live in cities. The means are simple—organize! Individual effort may accomplish little, very little, but the concerted, systematic efforts of intelligent men and women can change the face of nature; and this is the second of the objects of the Association—"the promotion of organizations and measures for the practical application of public hygiene." For this we have come to St. Louis. With this intent I address you to-night.

We have no especial form of organization to suggest to you—no pet theories to advocate—no particular scheme to recommend. There are many roads to Rome. Choose the one you will—only, all travel together. In time the shortest and safest will commend itself. A little more than fifteen years ago a State Board of Health was organized in Massachusetts. Not long after, California modeled one upon it, and next Minnesota,—and it is significant to note that since that time, the Western States have been far in advance in the matter of sanitary reform. The State Boards of Health have there attained their widest usefulness. With various details of internal organization, State Boards have been created in every state of the Union except Maine, Vermont, Pennsylvania, Ohio, Florida, Texas, Kansas, Nebraska, and Nevada. Had this meeting been held a year ago, I should have been compelled to have included Missouri. A year hence Texas certainly,—and perhaps Ohio—will cease to be exceptions.

It does not matter on what plan these Boards are modeled, nor what the creed or party or profession of their members. Only let them be men of skill and reputation; of fearless independence and unquestionable probity—and since seven or nine are the usual number of members—a community must be worse than the cities of the Plain, if it can not produce that many, and having found them, keep them, until like Rauch in Illinois, and Baker in Michigan, and Reeves in West Virginia, and Hewitt in Minnesota,and Chancellor in Maryland, and Thornton in Tennessee, and in this connection I might call the roll of the Association—until I say State, cause and man shall have become inseparable terms.

To be successful such a Board must be untrammeled, well-sustained, and liberally provided. If you would have the first spark of epidemic disease discovered and stamped out,and Illinois,and Tennessee,and Minnesota have proven how easily this may be done, you must not haggle over the few hundred or many thousand dollars required for the enginery, which is to isolate, and exterminate, ut regard it as an insurance against worse accidents than fire and flood—an assurance that you can go about without fearing to meet the pestilence that walketh by night. Had intelligent quarantine precautions been rigidly enforced, which would have protected New Orleans from the yellow-fever epidemic of 1878, there might have been lost, said Choppin, a million and a half dollars in trade; their omission entailed a needless waste of eleven and a half millions. Dr. Benjamin Lee, now President of the American Academy of Medicine, in a paper presented to this Association at Baltimore, November 11, 1875, demonstrated that the small-pox epidemic of Philadelphia in 1870—'72, during which there were 20,065 cases and 4,464 deaths, inflicted a loss upon the community of over twenty-one million dollars. As eighty-five of every hundred of these twenty thousand cases and ninty-five

per centum of these deaths representing four thousand two hundred and forty sacrificed lives, were preventable, he thus sums the account:

"An additional expenditure by the city authorities of about twenty thousand dollars for purposes of prevention made sufficiently in advance, and with such publicity as to make the public fully aware of the impending danger, accompanied by appropriate sanitary legislation and hearty co-operation on the part of its inhabitants, would have resulted in a saving to the city of Philadelphia of the sum of $24,720,718;" and this co-operation is most important for as Richardson says: "No progress can be made in preventive medicine without a sympathy of action based on knowledge to enable every man and woman to assist."

John H. Rauch, our former president, in his Fifth Annual Report as Secretary of the State Board of Health of Illinois,after stating that "small-pox invaded seventy-seven of the one hundred and two counties of the state during its epidemic prevalence (1880—1882) causing an aggregate of 8,856 cases and 2,978 deaths,and involving a cost of nearly four and a half million of dollars, exclusive of the value of human life lost and the disabled condition of many of the survivors," adds "within twenty days after the various agencies set in operation by the Board had fairly begun to act, there was a decline of nearly fifty per cent in the number of cases, implying a constructive saving of 320 lives and 1,517 cases and two and three-quarter million dollars." The Consul General of the United States at Rome telegraphed to the Department of State, September 16, with reference to the cholera epidemic prevailing in Italy: "In consequence of the quarantine,commerical intercourse with foreign countries is nearly suspended, while Sicily and Sardinia are cut off from the other parts of the kingdom. Beside the great loss to foreign commerce it is estimated that about four hundred thousand persons will be prevented from visiting the country this season." Assuming these persons would have spent an average of only fifty dollars apiece, this one item of loss amounts to twenty millions of dollars.

According to Sir James Paget in his recent address on "The National Value of Public Health," there is lost in England and Wales every year in consequence of sickness twenty million weeks' work, that is as much work as twenty million healthy people would have done in one week, which is one-fortieth part of the entire work done in each year by the whole population between fifteen and sixty-five years old." Sanitarians themselves would do well to bear in mind these giant figures of loss and be not so ready to accept without protest the niggard appropriations doled out to them. To be effective sanitary work must be thorough and to be thorough means for it must be generously supplied. Paper edicts, and a public parade of opened fire-plugs and odorous disinfecting apparatus will not keep cholera away. It is the unobserved house to house work of the competent sanitary inspector who delves into every cellar, peers in every closet,rummages in every alley,which makes the advent of such a plague impossible and this costs money—much money.

There is scarcely a limit to the good that a well-supported Board, possessing the confidence of the people, may not accomplish. Not content, merely, with removing nuisances and wiping-out pestilential spots of filth, the State Board of Health of Illinois has undertaken to prevent the occurrence of nuisances and the accumulation of filth by instructing the people as to the personal advantages and social obligations of cleanliness. Thousands of tracts have been circulated in the several languages spoken by the laboring classes of the State on the subjects of some of the more dangerous of the preventable diseases. If made intelligible and attractive the humblest members of the community may, in this way, in time, be reached and educated; and by means of authorized bulletins and editorial notices in the public press, sanitary intelligence might become a matter of daily inquiry and observance, as when the national weather forecasts were anxiously scanned to know how we should dress.

The work of the State Boards would be immeasurably aided by efficient municipal Boards, but the baneful shadow of an municipal system has deprived them of that non-partisan, non-sectarian color, which the State Boards happily possess and is essential to their efficiency. The great corporation or the wealthy manufacturer buys his civilian representative on the local board and the vile refuse of the factory pollutes the waters, its noisome stenches fill the air, living dirt accumulates upon the surface, till as in Philadelphia,it envelopes the whole city with its slimy mantle and the patriot pilgrim to the shrine of Independence doubts which is the greater marvel, the spot where a great nation was born, or the pestiferous mud he has waded through to reach it.

When the city authorities are incompetent, indifferent or venal, the people still have a powerful means of self-protection by organizing Auxiliary Sanitary Associations, as was

first done at Edinburgh, on the plan proposed by Professor Fleeming Jenkin,—and soon after, in November 1878, at Newport, Rhode Island, in April,1879, at Lynn, Massachusetts and at New Orleans, and two years later at Savannah. It is one of the boasts of this Association that its meeting at the latter city in 1881 bore such excellent fruit—and it will have equal reason for exultation, if at this session, it succeeds in awakening among the people ofSt.Louis a livelier sense of the obligations imposed upon them by their citizenship to consider seriously this matter of the Public Health—if it can make each householder and father feel that he has no right to be indifferent and inactive—each communicant of a church that his Sabbath prayers and thanksgivings are a hollow sham if he have neglected to do with all his might all in his power to prevent disease, and his professions of sinning only a complacent formality of the ritual and not expressions of his own share of culpable responsibility for the suffering, misery and evil-doing all around him.

These Citizens' Sanitary Associations need not be antagonistic or substitutive for municipal institutions. In the language of the Sanitary Protective Association of Newport: "The Association will not conflict with the public authorities; but will supplement their action. It simply aims to have every house in the city in a proper sanitary condition—

"1. By providing its members,at moderate cost, with such advice, and supervision as shall insure the proper sanitary condition of their own dwellings.

"2. By enabling members to procure practical adivce, on moderate terms as to the best means of remedying defects in houses of the poorer class in which they they are interested.

"3. By aiding or improving the sanitary condition and consequent good repute of the city, by following such course as in the opinion of the Council may seem calculated to promote this object."

Now, this is precisely what should be done in St. Louis, and without delay. The specter of pestilence is on your horizon. You have had timely warning of its approach. It will be too late to bar out the grim fiend after his shadow has fallen across your threshold. If your city is scourged you—you intelligent citizens, and you only, will be to blame. It will not fill the vacant places in your home to denounce incompetent authorities. Take the matter in your own hands and begin to clean; it is the Augean task of Hercules. The lair of the beast is amid muck and moisture. Open and let in the light; clean and whitewash every cellar and hovel, till there shall be no such thing as that abomination "cellar-air," air which causes the saliva to flow when you get a whiff, air laden with all sorts of microscopic pests. Empty every cess-pool, fill up every stagnant puddle, clear out every neglected alley, cul-de-sac and obscure lot, destroy rubbage, burn rags and mouldy straw and rotten soggy planks. Where there are fresh air and dryness and cleanliness there can be no cholera; and where these are not, it will come in spite of proclamations and perfunctory quarantines. Fumigations and disinfections which mask putrescence and substitute medicinal smells for sickening stenches are as ridiculous as the noise of gongs and tom-toms and exploding fire-crackers, and jin-galls by which the Chinaman hopes to frighten the devils who desolate his home and country, and worse than useless, from the false sense of security which they give. Even the exorcism of prayer had better not be attempted kneeling, but upon the feet with both hands hard at work.

I stated at the outset, that I would not review the *faits accomplis* by this Association in particular, and the selection as one of the topics for consideration at this session "the observable effects of official sanitary supervision," absolves me from the duty of commenting upon them in general terms, but I may be permitted to quote a leaf from my own personal experience that is valuable corroborative evidence of the good that follows efficient sanitary supervision.

Early in the year 1855, I became an officer in the Navy and I was not long discovering that a medical officer, in the first place, was not regarded by his line associates as an officer at all, and in the second that his functions as the "pill dispenser" he was assumed to be, were sought to be exclusively restricted to the healing of wounds and sores and the curing of such as might become sick without his presuming to inquire why they became sick and how they might be prevented from getting so. Fortunately I had been taught that the science of medicine had a wider outlook than the sick-room, and that the office of the physician was something else than to be the tinker of broken bones and the mender of human mechanisms, that human stupidity, human ignorance and human arrogance had needlessly marred. I had no lack of so-called legimately professional occupation. I lived among the sick and dying. In thirty months there were thirteen hundred snd forty-five cases of sickness in the little community of only two hundred officers and men, the daily sick-list often ranging from thirty-two to

thirty-five a day, month after month, and among them no suffering women or feeble children, no old people or lives wrecked by penury or toil, but all of them stalwart, adult men, chosen for their vigor, for a career that ought to be exceptionally salubrious. We buried twenty-eight of the two hundred; how many among those who deserted or were invalided or discharged from the service were buried by other hands I know not, but the Pension Office daily brings to notice such shattered lives that come begging its meagre bounty. While improper diet, insufficient clothing, ill-judged exposure, filth and foul air and reckless wetting the decks made men ill,not all the drugs in the dispensary,nor ten times the medical officers' skill could make or keep them well. Surgeon in title, physician in vocation, I had the lesson taught me that before all I must be a sanitarian, and ever since I have been an ardent one and to-day I can bear personal testimony to the observable effects of official supervision as it has been insisted upon in the Navy by my colleagues of the Medical Corps, in spite of opposition that has often amounted to insult and indignity. During the past year, as a member of the Board of Inspection of the Navy, I inspected a vessel which has returned from a three years' cruise, part of the time on the unhealthy coast of Africa. Among her complement of two hundred and twenty of officers and men there had been during these thirty-six months but a single death from disease, an average daily sick-list of 4.22 including trivialties that were formerly not recorded at all,and only seven men invalided for disabling diseases. This is the story of only thirty years of sanitary progress; this is an observable effect of sanitary supervision. Dark, damp, dismal, unventilated,fetid decks, crowded with listless, surly, discontented, wretched, ailing men—vicious as well as sick —on the one hand; on the other, bright, clean, dry, airy, unencumbered decks, with comfortably clad, well-fed men, contented, cheerful, hale and hearty.

Fortunately I am able not only to establish in this example what official sanitary supervision has done, but very decisively by another, not less striking, the evil that cessation of official sanitary supervision has brought about, and you, citizens of St. Louis, especially, ought to take this lesson home, since your city was the theater, a few years ago, of a somewhat similar experiment. There is a certain abominable class of diseases which are more virulent and destructive in their effects upon the human race than small-pox, cholera, yellow-fever or any other known scourge—diseases which on well-founded estimates are believed to affect in various degrees of severity not less than two million of the population of this country—diseases which assail the guiltless wife and innocent child as readily as the debauché and prostitute, and against which no degree of personal purity and probity are effective safeguards. In England the experiment which you performed,not in the most satisfactory or commendable way perhaps, was inaugurated in 1863,under the title of the Contagious Diseases Acts, chiefly for the benefit of the garrison towns and naval seaports,where large bodies of enlisted soldiers and sailors were aggregated, whose efficiency was seriously impaired by the diseases to which I have reference. The partial application of these acts made comparisons possible between the places,where they were in operation and those where they were not, and about two years ago I had the honor of reading a paper before the Medico-Legal Society of New York in which I presented tables from official reports to Parliament by the Directors-Generals of the Medical Departments of the British Army and Navy, showing that while from 1860 to 1863, before the enforcement of these Acts, the ratio of these diseases, was about the same everywhere (in fact, higher in the posts subsequently brought under the influence of theActs,being 70.05 per thousand in the former and 75 in the latter) by the year 1880 in consequence of the operation of these Acts, it had fallen to 40.64 in the ports protected; an experience precisely similar to that of the army stations, the facts there being that while in 1863 at fourteen stations till then unprotected the proportion was 129 per thousnd and in fourteen others 116, in less than twenty years these latter stations, which continued unprotected, exhibited a ratio of 101 and the protected stations though formerly in excess, only 44.

Notwithstanding these incontestable results the persistent efforts of a certain well-meaning but narrow-minded set, by sentimental appeals and wily and ingenious misrepresentations addressed to the religious classes most of whom were totally ignorant of even the existence of such diseases and especially of the risks from them to which they and their children were subjected, effected the suspension of these Acts, on the 12th of May, 1883, and in only seven months this cessation of official sanitary supervision had borne this fruit: The fourteen protected Army Stations which till then had a proportion of145.73 per thousand cases of disease as against. fourteen unprotected stations, which had 259,

suddenly rose to 258.8;while the naval results were precisely parallel, the number of sick among 22,000 men having been in 1880, 129.4; in 1881, 134.9; in 1882, 125.1; rose in the seven months of 1883, (May 12 to December 28) to 214.7.[1]

The further significant fact was noted that while the admissions to the certified hospitals were 2,542 in 1880, 2,476 in 1881, 2,254 in 1882, there were but 720 in these seven months of 1883, the number of unrestrained diseased individuals roaming at large being, therefore, three times as great as when the Acts were in force. At the Easter term this year the grand jury of Colchester came into court at Quarter-Sessions calling attention "to the increased immorality in the town since the modification of the Contagious Diseases Acts has come into force," and the Recorder stated that he had information from the Mayor of the borough which rendered their presentment no matter of surprise. The cases of disease in the military hospitals having increased three-fold, the magistrates of Maidstone have unanimously expressed their opinion that the Contagious Diseases Acts should be re-enforced. No patients from Maidstone, Deal, Winchester or Windsor had been admitted into any of the certified hospitals for the preceding nine months. The Government Hospital at Shorncliffe has been closed and only three women from Dover had been admitted into the hospital at Chatham.

The investigation of this subject by this Association in former years gives these data, which are extracted from official returns presented to the House of Commons on the motion of Sir Drummond Wolff, peculiar and pertinent interest, although the scheme for the protection of the innocent and helpless members of the community against these diseases, advocated by your committee, of which I had the honor of being Chairman, had nothing in common with the British Contagious Diseases Acts nor the St. Louis license experiment, but proposed to legislate broadly and indiscriminately against the men as well as the women "who knowingly communicate, or are instrumental, in communicating, directly or indirectly any contagious disease, whether small-pox, scarlet fever or venereal disease," and to hold them guilty of a misdemeanor and punish them accordingly.[1]

But I have promised not to detain you long nor weary you with dry detail. My proper office is to invite you cordially to attend and assist at our sessions. The topics we have chosen cannot fail to interest—the adulteration of the food you eat, the pollution of the water you drink, as well as the beer, the sanitary improvement of your houses and occupations, the removal of offensive refuse, and, especially and above all, the hygiene of your schools. In view of the magnitude and moment of this one subject perhaps it would have been well for us to have considered it alone. It sounds like rank heresy for me to declare that there is anything vicious in the system of American public school education, for the public school establishment has been considered the jewel in the cap of the Goddess of Liberty, the blue ribbon on the neck of the Bird of Freedom; nevertheless, is it not true that your stately school-houses are crowded beyond every sanitary propriety with hordes of feeble children? Enter them,fresh from the outside air, an hour after the session has begun, and you recognize the mawkish odor of human effluvium which these poor children and the one pale girl condemned to teach, watch and control perhaps sixty unruly boys, are compelled to breathe until poisoned by it. Are not their undeveloped plastic bodies distorted on uncomfortable seats at uncomfortable desks, their eyesight progressively deteriorated by glaring windows and poor type, their physiological necessities opposed by inflexible rules and protracted hours? Then as if mere physical cruelty were not enough, a new torture has lately been devised called mental arithmetic, and with hands convulsively clutched behind their backs, or rigidly extended by their sides, to make their sufferings more intense by repressing the muscular action, which would give relief to the nervous tension, the embryo artist and budding musician and mathematical prodigy alike are required to tell how many apples at $2\frac{1}{16}$ cents apiece a man can exchange for onions at $9\frac{2}{13}$ cents a dozen, or how many pairs of slippers a shoemaker who had no money,would be required to make at $62\frac{3}{8}$ cents a pair to pay for two barrels of flour at $5\frac{1}{6}$ dollars a barrel —problems it is claimed, so simple that any dullard can solve them with slate and pencil, and therefore required to be evolved without this aid in the name of intellectual exercise.

The baby farm, the infant school, and the compulsory night work of the child encourag-

1. The ratios at Haslar (Portsmouth) with a force of about 7,000 men were for the periods above mentioned 137.5, 190.8, 191.7 and 283.7 respectively; and at Plymouth, with a strength of about 7,500 men, the corresponding rations were 129.4,137.1, 104.1 and 230.7.—British Medical Journal, No. 1213, March, 29, 1884.

1. Reports and Papers of the American Public Health Association, vol. viii., p. 333.

ed or allowed to compete for bogus medals, are unsightly blots upon our records, which every sanitarian should labor to erase.

The progress and welfare of a people are dependent upon the proper rearing of itsyoung. Therefore I ask your careful attention to the report of the very able committee of this Association on School Hygiene; and in this connection I have one word to say to the Association itself. Having so satisfactorily accomplished its novitiate, it can now deliberately consider the most effectual way of fulfilling its objects. The variety of subjects and number of papers annually offered have compelled the executive committee to select certain special topics for consideration at each meeting. The suggestion I now make is that at the close of the meeting at which these papers are read special committees shall be appointed of members who have shown interest in these respective topics, to report their collective experience and conclusions at a subsequent meeting. Thus the deliberate opinion of the Association carefully phrased will be placed on record and published to the world in our Transactions. I look upon this committee work of the Association as its most effective means of accomplishing its objects, and fortunately the admirably selected committees of this year themselves furnish the best argument for the course I have suggested.

I do not flatter myself that I have convinced any unbeliever among you that we are preachers of the true faith. I have not sought to do more than induce you to come and listen to the papers and discussions. Do not come with the idea that we aspire to make this earth elysium. All that live cannot be free from suffering. Among the little ones that come wailing into the world are some who ought never to have been born, and whom it were well if they were early blighted. Neither has Hygiene any share in that utopianism which measures every appetite by regulated necessity, bidding us to eat just that weight of just such food, prepared with no culinary æstheticism, to drink only water or milk or the unfermented juices of fruits, or decoctions and infusions of bitter herbs, and eschew wine, beer and hard cider; even to deny the marital caress to the promptings of emotional impulse and make it a calm, deliberative, purposive genesaic act. Nature is wasteful. Germs of all living things are born in needless profusion and perish unnumbered with the forest leaves and the myriad swarms of the microscopic world. Only the fittest ultimately survive, and it should be our aim not merely to add a span to each poor puny life, but to make the strong stronger till the evolution of the race into the highest order of which humanityis capable shall have been accomplished Every human being cannot be made to live three score and ten. Some are doomed from birth to prematurely die and we cannot save them, but we can and ought to save those that have a right to live who are now slaughtered in hecatombs by preventable diseases.

GALL STONES — THEIR PREVENTION AND TREATMENT.

BY WILLIAM A. BYRD. M. D., QUINCY, ILL.

Read before the Mississippi Valley Medical Association.

Concretions consisting of various substances form in the biliary ducts and gall bladder under favoring circumstances in man and various other animals.

These concretions in man vary in size from a millet-seed to that of a pullet's egg, and are composed for the most part of cholesterine, bile pigments, epithelial scales, cholepyrrhin, and lime in combination with the bile acids. The majority are composed in great part of cholesterine. They are generally composed of a nucleus, which may be the body of a dead parasite, inspissated mucus, or crystallized cholesterine; a body, generally composed of cholesterine, mucus and bile-pigment; and a shell, very thin, composed of some lime-salt. They are influenced in form by their size, number and location.

If a great number that are small in size are loose in the gall bladder they are generally smooth and spheroidal in shape, while if they are few in number, and large in size they approximate nearer the cube, with facets where they come in con- with one another; if solitary, and in the gall-bladder, they are generally large and spheroidal, without facets and with a smooth external coat. If they are formed in other portions of the biliary tract they partake of the shape of the duct or ducts and may be branched like a tree.

Biliary calculi may afflict humanity at any age and may be found in all countries and in both sexes. Middle life is the time that they are most prevalent, and records show that women suffer about three times as often as men.

Those persons pursuing sedentary occupations are much more prone to this disease than those that lead an active and out of door life.

Authors seem pretty well satisfied that it is not owing so much to a changed chemical condition of the bile although such may be the case, that gall-stones owe their origin, as an obstruction to its onward flow toward the intestine. During the stasis an opportunity is given for thickened mucus or epithelial scales to accumulate at some one point, or for the cholesterine to crystallize and perhaps entangle thickened bile-pigment among the crystals, thus to form the nucleus of a future stone. This condition may be brought about by external violence, lack of active exercise, by eating too seldom during the day, or by a catarrhal condition of the biliary passages blocking up the bile, by tight lacing or pregnancy and by the pressure of hepatic or perihepatic tumors. In color they vary from a pearly white to a glistening jet black

or deep brown. They are mostly of a dirty brown color. When dry they will float upon water, but in the recent state they will sink. They are readily dissolved in chloroform and ether, and to a less degree by some oils and hot alkaline solutions.

Granting that they are formed from an altered condition of the bile, or more frequently from the bile remaining in long-continued state of rest with the addition of an undue amount of mucus secreted from the catarrhal coat of the bile ducts, prophylaxis would require all exciting causes to be removed. Tight lacing should be forbidden; any tumors that interfere with the flow of bile, that could with safety, should be extirpated; and at least three meals a day should be eaten to stimulate the peristaltic action of the intestine.

A moderate degree of exercise should be taken, and that of such a nature as to bring the abdominal muscles into play, so that their alternate contraction and relaxation would drive the gall along the ducts into the intestines. Costiveness must be guarded against by the use of alkaline laxatives.

In Europe the Germans recommend the Carlsbad water, and the French Vichy. In this country our alkaline and alkaline-sulphur springs will answer equally as well. For instance the Congress springs at Saratoga, Bladon spring in Alabama, the California Seltzer springs, the St. Louis springs in Michigan and the Perry and Versailles springs in Illinois, would answer as alkaline waters. Many other springs would answer as well.

Many patients would be pecuniarily unable to go to any watering place and such would have to be put upon proper treatment at home, being careful to have alkalies taken at proper times and looking well to the action of the bowels. Of course exercise that can be taken amid agreeable company will be of very decided advantage. In the July, 1877, number of the American Journal of Medical Sciences Dr. Thomas H. Buckler of Baltimore recommended the use of "the hydrated succinate of the peroxyde of iron" in the treatment of biliary lithiasis. His idea was that succinate of iron would yield sufficient oxygen to prevent the cholesterine from crystallizing or forming new compounds In his hands it seemed to have the desired effect, but the reports from other observers are not so favorable, and now after the lapse of seventeen years I doubt if many of the profession recollect it.

The first intimation that a patient has that he is afflicted with gall-stones is a sudden attack of bilious colic, which is ushered in with a chill, generally followed by fever, sweating and excruciating pain in the region of the gall-bladder. This pain passes off after a variable time, and recurs at intervals more remote. The pain is caused by a gall-stone becoming lodged in the cystic or common duct, most frequently, though a stone may meet with obstructions anywhere in the hepatic duct that will cause an equal amount of pain. It ceases when the calculus has passed on to the intestine or back into the gall-bladder. A different issue may occur, as the stone may cause ulceration that will establish a biliary fistula leading into the intestine, stomach, bronchi, abdominal cavity, externally or into the substance of the liver causing abscess. Although hepatic colic is generally the first symptom that may call the patient's or physician's attention to the liver as the seat of mischief, there is a latent stage of the disease when the calculi are forming.

Seldom is there any symptom during this period that will call for treatment, but at times there is a kind of intermittent fever with intermissions of a week or more, denominated by Charcot as "la fievre intermittente hepatique." Such a condition should lead the physician to suspect hepatic lithiasis.

It is seldom indeed that the calculi can be felt through the abdominal walls. Many patients that are subject to gall-stones, owing to sedentary habits, and perhaps heredity, are quite fleshy and no man's touch would be sufficiently erudite to decide that there were concretions in their gall-bladders. Even in very thin persons such a method if relied upon alone would prove extremely fallacious. For instance I have here a gall-bladder containing biliary calculi that I took from a patient the tenth of this month. I do not think any man could have felt them through the abdominal walls, yet I had diagnosed their existence six weeks before the lady's death. There remains another method of deciding certainly the presence of biliary calculi and that is by exploring the gall-bladder with a fine aspirator needle or other slender instrument.

This method of diagnosis had been proposed by various physicians, but was first practiced by Dr. James T. Whittaker, of Cincinnati, April 20, 1882, and described fully by Dr. Joseph Ranschoff in a paper entitled "A contribution to the Surgery of the Liver," read before the surgical section of the American Medical Association at its meeting in St. Paul in June, 1882, and published in the New York Medical Record for September 2, 1882. The same method is recommended with a report of a case in which it was tried by Dr, George Harley, of London, in the Medical Times and Gazette, numbers for July 5 to 12, 1884. The method was successful in the hands of all these gentlemen, and though not being entirely devoid of danger, is worthy of further trial in suitable cases. Local rise of temperature at the site of the-gall bladder over that of surrounding parts sometimes indicates the existence of an impacted gall stone.

Jaundice is not a complication and an accompanying symptom in cases of biliary colic, except in those cases where the ductus communis or hepatic duct are closed by an impacted calculus. The calculus either breaks up, or passes on into the intestines or back into the gall-bladder when the patient is relieved. If it passes on into the intestine it frequently becomes entangled in the appendix vermiformis or the illeocœcal valve, causing inflammation, ulceration and obstruction of the bowel followed by the death of the patient.

Even should the calculus pass the intestine without being arrested and causing damage, the tendency to form other calculi has not been arrested.

To discover gall-stones that have passed into the bowels the fæces should be placed upon a sieve and washed with a stream of water. The treatment of gall-stones, outside of the prophylactic, which has already been pointed out, must be divided into medical or palliative or surgical and radical.

The medical treatment was the only one that received any attention whatever from the profession until very recently. Anodynes are indicated for the relief of the great pain. Of these, opium or some of its derivatives rank first, then come chloroform and ether.

Durand recommended a mixture of oil of tur-

pentine and ether;and some one, I have forgotten who, recommends large doses of olive oil. Dr. T. H. Buckler, of Baltimore, contributes a valuable article in the July, 1867, number of the American Journal of the Medical Sciences, entitled "Solvents of Cholesterine," in which he recommends chloroform very highly and quotes H. Bunce Jones in regard to the permeability of tissues to show that chloroform taken into the stomach will permeate the surrounding tissues so as to reach the impacted calculus and dissolve it. His experiments proved turpentine to be of no value as a solvent. Ether is a good solvent, but owing to its great volatility is not permanent enough in ordinary doses to accomplish the desired good. Chloroform is not only not so volatile but is a better solvent than any other agent and its anodyne qualities place it next to opium when taken into the stomach for the relief of pain.

Many who have tried the chloroform treatment indorse it for the benefits derived from it, but attribute all the good effects to its anodyne qualities, denying that it can so permeate the tissues as to reach and dissolve the calculus.

They think that when the muscular fibres of the duct are relaxed by its anodyne effect the calculus passes on to the intestine and the trouble is relieved.

Let the reason be as it may,in my hands chloroform has been the only effective agent for anything like a satisfactory relief of bilious colic.

I have several patients who had been subject to the trouble for years that have been apparently permanently relieved,and one,a circuit judge,that never goes away from home without his bottle of chloroform mixture with him. Yet he has had at one time a respite of nearly three years.

Mixtures of this kind should always be dispensed by the physician himself to prevent the possibility of the patient contracting the morphine or chloroform habit. After the colic is relieved prophylactic treatment should be insisted upon. Dr. Chas. Wesley Rook,of Quincy,suggests injecting a small quantity of chloroform into the gall-bladder with an aspirator to secure a solution of the stones.

When the common ducts become occluded by a number of calculi or by one large calculus the bile continues to accumulate, and the gall-bladder and the terminal hepatic ducts become over distended and the patient's life is in immediate increasing danger. In former years this was a deplorable condition indeed for a patient to be placed in, as the surgeon's great respect for the peritoneum forbade him giving his patient any chance for his life beyond the application of hot cataplasms and the exhibition of large anodyne doses. The introduction of the aspirator has placed at our command an appliance that can be used as a palliative and, at times, we can secure a cure by its proper use. In a case I saw with Dr. E. C. King, of Payson, Illinois, some two years since, the gall bladder was greatly distended and the patient was suffering in agony. To give immediate relief I introduced an aspirator needle into the gall bladder and drew away three ounces of its contents, giving the patient great ease. This being followed by anodynes the offending calculus passed on into the intestine.

She has been taking remedies to correct the tendency to the formation of calculi since, and has only suffered occasionally from hepatic colic.

Each attack has been readily relieved with anodynes without further resort to instrumental interference. The relief of the distension will relax the contracted duct, or remove the pressure acting as an irritant; that being removed permits the congestive swelling to subside and allows the stone to pass on, as is frequently the case with urine passing a stricture of the urethra after a an over-distension of bladder has been relieved by aspiration. When the pain is not relieved by anodynes or aspiration, or when there is reason to suspect that ulceration of the coats of the ducts is going on something else must be done, and that something else is the operation first performed by our illustrious countryman, and perfected and popularized by no less illustrious an Englishman, Mr. Lawson Tait, cholecystotomy. This operation has before it as fair a field as has perineal section for the relief of cystitis,and other diseases of that organ. Mr. Tait recommends that the opening in in the gall-bladder be stitched to the opening in the abdominal walls so as to permit a free external flow of the bile. By this method there is no accumulation and over-distension with its accompanying irritation and inflammation to complicate the course towards recovery. Having for some years taught and practiced the making of intestinal fistulæ to prevent over-distension and its attendant evils when an enterectomy or enterotomy is performed, of course I admire the same method when applied to cholecystotomy and believe it far preferable to the plan of Sir Spencer Wells, where the opening is made into the gall bladder,the calculi extracted and then the opening is sewed up and the abdominal wound closed. This latter practice is much more liable to be followed by a recurrence of the trouble than is the method of Mr. Tait.

I will only mention Langenbuch's method of total excision of the gall-bladder for the cure of gall-stones to state, that in my opinion, it should never be put to practice except on the cadaver.

At the conclusion of the reading of his paper Dr. Byrd exhibited a great variety of gall stones, one as large as a hen's egg that had been passed with the fæces. The patient suffered seven years before getting rid of it.The first pain occurred during its passage through the duct and afterwards pain occurred as it passed the ileo-cœcal valve. He also opened the gall bladder that he had removed from the cadaver two weeks before and exhibited a collection of brilliant white calculi in it. Some were spontaneously fractured. One had become lodged in the cystic duct and by pressure had caused one side of the duct to give way and present the appearance of a diverticulum containing a stone with one side projecting into the duct.

—Dr. Reilly, Assistant Secretary of the Illinois State Board of Health, paid the REVIEW office a friendly visit last Thursday.

—Drs. A. Jacobi and N. S. Davis were appointed at Copenhagen as the American representatives on the International Collective Investigation of Disease Committee.

—Dr. J.N. Outen in the American Practitioner reports a case of a cockle burr being caught just under the epiglottis. It was easily removed with the finger.

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MALPRACTICE SUIT AND THE RULING OF THE COURT RELATIVE TO THE OBLIGATIONS OF THE PHYSICIAN TO GIVE EXPERT TESTIMONY.—A suit for alleged mal-practice which was tried in the Circuit Court in Chicago on October 7, is of interest to the profession both on account of the prompt acquittal of the defendants and the ruling of the judge on a question relative to expert testimony. The case was as follows: A certain A. B. Lee was a dispensary patient at the Illinois Charitable Eye and Ear Infirmary and there treated by Dr. F. C. Hotz for encysted tarsal tumors of the lower eyelids from August 9 to August 24, 1882. On the latter date Dr. Hotz discharged the case as cured. On the 27th of August Lee presented himself again with the symptoms of a severe acute conjunctivitis and, Dr. Hotz being absent, Dr. Gilmore treated him. The application made was a solution of nitrate of silver, five grains to the ounce, to the palpebral conjunctiva of both eyes. The next day the eyes were much worse, the symptoms of a severe form of purulent (presumably gonorrhœal) conjunctivitis being now fully developed. From that day until he discontinued attending at the dispensary he was treated every day by Dr. Hotz. The right eye made a quick recovery, but the left eye was destroyed by peripheral ulceration and rapid sloughing of the cornea, about one week after the inflammation began.

For the loss of the eye Lee sued Drs. Hotz and Gilmore jointly for $10,000 damages. After hearing the evidence of the plaintiff's side the court decided that the case could not be tried against both doctors jointly, as there was no evidence to show joint liability. The plaintiff then at once dismissed the case as to Dr. Hotz and tried to prove that Dr. Gilmore caused the severe inflammation of the left eye by the careless application of some severe caustic. As he failed to prove the nature of the alleged caustic and did not secure an expert to support his charge, the jury after a short deliberation rendered a verdict in favor of the defendant.

The physician into whose hands Lee entrusted his eye after ceasing to attend the dispensary, being subpœnaed to testify as to the facts of the case when he first became acquainted with it, was, after giving the facts, solicited to express an opinion as an expert. He persistently refused to express an opinion on the grounds that he was subpœnead merely to testify as to facts. Own opinion implied the office of expert in the case and the position of expert he refused to assume. The court sustained the position which the physician took and ruled that he was not obliged to do more than testify as to the facts such as they were known to him.

This action of the court is of considerable importance, as it shows that a physician cannot be made liable for any act of his locum tenens when duly qualified by law, and further that no physician is obliged when subpœnaed as a witness of fact to express an opinion as an expert.

CHICAGO COLLEGE OF PHARMACY.—The opening exercises of the Chicago College of Pharmacy took place in the new college on State street on Monday, 13th inst. The college enters on its second quarter of a century with increased facilities and a large increase in the number of students. The college enjoys that prosperity which persistent attention to the work undertaken deserves, and we can say without fear of contradiction that it offers facilities for the study of pharmacy

equal to any similar institution in America. The laboratory furnishes working convenience for ninety students at once, and although we regret to learn that the laboratory work is not compulsory, yet it is strongly recommended by the faculty. The excuse for not making it compulsory is, that they are supposed to learn laboratory work during their work in the store, which is of course compulsory. The general lecture room has a seating capacity of six hundred.

On the occasion referred to Mr. E. H. Sargent gave the opening address and an inaugural lecture was delivered by Professor Oscar Oldberg, formerly of St. Louis. The College of Pharmacy has for years adopted a plan which, if the conferring of degrees be ever invested in the hands of an examining board, independent of the colleges, the medical colleges will have to adopt; namely, a regular fortnightly written examination on the subjects which have formed the topic of discourse. This means a lot of work on the part of the professor in examining the papers, but it also means a very great advantage for the student. Those who have looked over examination papers at the end of a term of lectures, where no previous written examinations have been instituted, know how unsatisfactory such papers usually are. By giving the frequent written examination method a test they will also realize better than in any other way the value of that kind of work.

Hemorrhoids.—The treatment of hemorrhoids constitutes no inconsiderable item in the general practitioner's work and those who hesitate to inject the mass with the various proportions of glycerine and carbolic acid for fear of embolism, or who do not like to resort to the actual cautery, or the fuming nitric acid, will welcome the results of the plan recommended by M. Verneuil. Before making the quotation, which comes from the Medical Age, we call attention to the necessity for uncomplicated measures both in pharmacy and surgery. In all cases where the hemorrhoids are either injected with carbolic acid, or subjected to actual cautery or touched with fuming nitric acid, the sphincter is previously stretched, and whilst the advantage has been hitherto attributed to the acid or the heat, we now receive the assurance that the stretching of the sphincter is all that is required.

"M. Charles Monod has written to the Gazette des Hopitâux, an article on a new treatment of strangulated hemorrhoids which he has put into practice with the greatest success. This treatment consists in forcibly dilating the anus, as in case of fissure. M. Verneuil has already recommended this method for the cure of simple piles, and has been followed by most of the young surgeons, who have entirely abandoned every other treatment. To effect the dilatation M. Verneuil employed specula of different dimensions, and only in the case, as has been just stated, of the ordinary condition of hemorrhoids. On the contrary, he says that "when the piles are the seat of sphacelus he always waited until the complication disappeared." M. Monod, who has imitated M. Verneuil with the best results in those simple cases, goes still farther, and instead of regarding strangulation as a counter-indication to the operation, considers that this fact renders it the more necessary. He cites a case in point. He was called by one of his confrères to see a gentleman who had been suffering excruciating agony for two days from strangulated piles, and on whom ice fomentations, narcotics intus and extra were tried without effect. Local examination showed no more than is ordinary in such cases—a ring of tumefied external hemorrhoids, with a dark spot in the centre, announcing the commencing of sphacelus. The least touch was painful, and the patient demanded relief at any price. Partisan of the treatment of hemorrhoids in general by dilatation, he thought that he would be doing right in employing it in the present case, knowing that by suppressing the general action of the sphincter the pain would cease. Accordingly, the patient was put under the influence of chloroform, and the hemorrhoidal tumors reduced, and M. Monod large-

ly dilated the anus with his fingers. A few minutes afterwards the patient awoke free from all pain,and in a few days he had the satisfaction of not only feeling that the strangulation had entirely disappeared, but that he was forever quit of the piles. This case of Monod's proves that the hand dilates just as well as the speculum, and consequently the operation is reduced to its simplest expression.

Cremation is warmly advocated by many of the prominent medical men in England. The British Medical says:

"Sir T. Spencer Wells once more publicly urges the claims of cremation as a practical measure of sanitation. Public opinion is rapidly coming ronnd to the common-sense view in favor of this important hygienic reform, and broad religious sentiment is pronouncing in its favor. Among its supporters may be counted the Earl of Shaftesbury and more than one of the bishops. The City of London Commission of Sewers has shown a vigorous sentiment of approval of this wise practice. The Cremation Society of England, which has as its medical founders Sir Henry Thompson, Sir T. Spencer Wells, and Mr. Ernest Hart, possesses a fully equipped crematorium, erected at Woking, which is ready for practical operation, under suitable and minute safeguards, when freed from the obstacles which were at one time interposed by a somewhat ill-informed, prejudiced, and official obstruction."

Mr. Thomas Bayley, however, suggests the exposure for a given time of bodies to the dessicating influence of dry air. Whatever may be the future of the general and increasing impulse for cremation we do not anticipate that the suggestions of Mr.Bayley will be accepted. If there be a certain amount of danger that detectson of some few cases of poisoning may be rendered impossible by the process of cremation it would also develop greater vigilance and circumspection relative to the causes of death.

Model Barrack-Ambulance Prize.—The contribution of the Empress of Germany of five thonsand francs and a gold medal for the furtherance of the work of the Red Cross Society is set apart as a prize for the best model of a barrack-ambulance.The programme of competition as well as the selection of judges is left to the International Society for the Aid to the Sick and Wounded in War, established at Geneva.

Canned Goods—The Industry and the Public Health.—We are just in receipt of a circular from the Canned Goods Committee, N. Y.Mercantile Exchange, andwe are pleased to express our approbation of the manifest fair business spirit which characterizes the circular. We are far from taking that pessimistic view of the greater part of the community which attributes to influential men the general desire to sell sand for sugar and offal for wholesome food.In general, we think, it will be found that the business part of the community,especially thosewho prepare cheap food for the million, exhibit a spirit of honesty associated with enterprise equal to that displayed by any branch of the working world. Cotton seed oil is nuquestionably mixed in large quantities with the hog products and sold as lard; oleomargarine is unquestionably sold as butter, and pepper stock figures largely in a considerable amount of the goods sold under the name of pepper; but in the canned merchandise as it comes from the manufacturer we are innocent enough to believe that in general terms we have a good wholesome article of food, not of course equal in flavor to the fresh joint or the peach just plucked from the tree, but an article put up in good faith by the manufacturers. The substance of the circular in question is not to waste words to establish that conviction in us, but rather to beg that in fairness any case of physiological disturbance supposed to be due to the influence of canned goods should be duly and carefully investigated before a haphazard opinion is expressed. We at first thought that the circular should rather have been sent to the general press, but on second thought it became evident that it is the physician who is called in to in-

vestigate such cases and on whom depends the verdict relative to the cause in question. Just here we would call attention to a possible source of error which should always be carefully avoided. Of course physiological disturbance is just as likely to occur from organic matter in a state of decay, when it has been allowed to stand exposed whether it is canned or not; but supposing there is any evidence that such has been the case the accusation cannot be justly made against the canned goods as such, but must be confined to the individual in charge. No good whatever can possibly arise from the cultivation of a mere spirit of distrust between manufacturer and consumer unless the distrust can be shown to be the legitimate outcome of dishonest proceedings; and whilst it is our privilege and duty to expose any intentional imposition on the public, any unforeseen prejudicial development, any unwary statement that cannot be proven only renders the honest and efficient efforts to expose a real danger the more difficult.

In the annual production of five hundred millions of canned goods, that is the estimation of the supply, some specimens of course must spoil, and whilst we do not believe that any respectable firm would resort to means for recovering the contents of such cans, yet there evidently are some hunters after money who make it their business to collect such cans which are spoiled, pierce a hole in one end, and after allowing the gases of decomposition to escape, re-heat the contents and solder it up afresh. As we understand it such is always the case when two pieces of solder is on one can. The circular expresses a desire to facilitate any effort for the accurate appreciation of any facts relative to canned goods, and we recommend this point of their notice, and we certainly need not remind any careful physician of the necessity of great caution in any case of alleged difficulty said to have arisen from any such or similar source.

—The Polyclinic says: The citizens of Philadelphia ought to bestir themselves in the matter of abolishing the office of coroner.

SOCIETY PROCEEDINGS.

AMERICAN PUBLIC HEALTH ASSOCIATION.

[SECOND DAY CONTINUED.]

EVENING SESSION.

The evening session was called to order at a quarter after eight, with a good attendance of members and their ladies. The first paper read was that of Hon. Erastus Brooks of the State Board of Health of New York, Second Vice-president of the Association, entitled: "The Food We Eat, the Liquids We Drink, and the Adulterations We Submit to." He said:

"If men are fearfully and wonderfully made there is nothing more marvelous in the form of this creation than the character or substance of the food they eat. In this food there is carbon serving as a fuel for the support of animal life; and carbon with hydrogen, oxygen and nitrogen make the four essential elements of human life. Phosphorus, sulphur chlorine, sodium, potassium, calcium, magnesium, iron and fluorine, are but of secondary importance among the primary elements. In all these, which the animal and vegetable kingdoms provide, the sustenance of our daily existence is found. They give strength to the limbs, flesh and blood to the frame, and muscle to the whole body.

"Carbon, with a little hydrogen and oxygen, the chief constituents of our food, compose the alimentary support found in butter, suet and in all those fatty or oily elements which become part of every healthy life. The flesh, blood and bones need the phosphates derived from animal and vegetable food. The iron in our blood is obtained chiefly from the meat we eat, and traces of iron are found in milk, eggs and in almost all kinds of vegetables. The elements I have named are parts of one great whole, and in the food we eat their mixture is necessary to prevent waste and decay. Using any one of them alone, which is almost impossible as the combination is practically a necessity, the human system would lose about all its forces.

"These elements make blood and cause nutrition. There is in them the power of respiration, and there is no real life without them. The saccharine qualities, as sugar, the oleaginous representing butter, nitrogenous representing albumen and salts, the aqueous representing water and other fluids include and conclude all sources of supply. Water in quantity, if not in variety and qual-

ity holds all these elements. Nine-tenths of the milk we use is water. Uncooked beef contain 70 or 80 per cent. of water, and many vegetables have even a larger per cent of fluid; but while this is true, milk is almost the only fluid that supports the human body. This fluid, besides holding water in greater proportions than almost anything else, represents sugar and casein which, in close alliance with albumen and butter, represents in food what is oleaginous. The proportion of these ingredients in human milk are ten parts of casein which makes blood, ten parts of butter or fat, twenty parts of carbo-hydrate or sugar and a tracing of salt.

"For infants and adults alike, physiology has proved in recent experiments that casein and albumen are the essential producers of blood, and we all know what this fluid performs in the work of rebuilding and strengthening the human frame.

"The combinations of the several groups of human food are: Aqueous, saccharine, oleaginous, albuminous, gelatinous and saline.The best recognized teachers of the qualities of food remind us of what is necessary to make up the deficiencies in the wear and tear of life, if we would preserve the necessary fires of animal existence. With constant waste in one direction, the necessary daily food to prevent this decay is required as the needed balance to preserve life."

The lecturer then went on to say that digestion depends largely upon what we eat. The quantity is oftener too much than too little. In the army and navy, in the hospitals and prisons especially, the quantity is prescribed by pounds and ounces and based upon the work done by the consumer. The proper cooking of food is one of the fine arts, and mental happiness is largely dependent upon well-cooked food, and the important and essential part of a true domestic home is the kitchen.

The most palatable and beneficial of our varied kinds of food is milk. Adulterations are found in much we eat, drink and wear; and, as a general rule, we may abandon all stimulants and condiments, except when prescribed by a physician. The extent of food adulterations is one of the worst signs of the times. No country is free from this public evil, and it is next to impossible to reach and punish these abuses. Coffee has been adulterated until it some instances there is not an ounce of coffee to the pound, and three-fourths of the teas sold are impure. Milk is adulterated in many ways, some of which are very injurious, and spices are notoriously largely adulterated. The adulteration of drugs demands the attention of health authorities. In spirits, especially in wines, the adulterations are much worse than in coffee or general articles of food, and in 1881 fifty-six per cent of 3,361 samples of wine examined were found bad, and six per cent. dangerous. Butter should come from the dairy and not from the fat of animals; and in New York forty millions of pounds have been sold in the state in a single year. In Bavaria recently an inspection resulted in the condemnation of 33 breweries, and in fines ranging from $50 to $250 each, and three other brewers were sentenced to eight months imprisonment. Glucose may be harmless enough, but when 35 and 50 per cent. are mixed with honey and maple sugar the deception is palpable and flagrant. Most kinds of oil are more or less adulterated and the chief fraud is in calling oils by wrong names. Cheese is adulteraqed with potatoes or bean meal and the rind has at times blue vitriol and arsenic to give it the appearance of age. Other poisons are used to give the cheese a biting flavor, and lard cheese is made at twenty-three factories in New York. Sugars are much less adulterated than formerly, and adulterations are now limited more to glucose than formerly. The paper then concludes as follows:

"There are before me authorities showing the extensive and carefully planned adulterations in butter, alum, borax, barium, curd, fats, flour,gypsum,lard, lead carbonate,of lead chromates, yellow potato flour, salt, sodium, silicate or soluble glass, soapstone, starch, etc. French, German and English authorities name all these uses and abuses. Lard or cheap fats are common adulterations in England as in the United States. Loads ofsacks filled with peas and bean are ground and sold for coffee and the sweepings of factories are used to adulerate ginger. Two-thirds are impure to one of the pure article retained. Old boots and shoes literally pass through the heat of the hottest ovens to be mixed with pepper, and tan-bark removed as a nuisance is ground into cinnamon. This class of domestic manufactures simply forbid all additional comment upon what at times is thus made and sold.

"Finally, there is no more reason in truth, and there is much less reason in fact,why food adulterations should be tolerated or excused rather than adulterations in gold or silver or the use of counterfeit money or coin of any kind. What is sold as food to eat or as coffee, tea, cocoa, beer or wine or more stimulating spirits for drink should be pure. The gold when adulterated for purposes of science

or manufactures should state the grains of pure gold in the coin or in the article made, whether in jewels or any other thing manufactured. The same at least should be true of the silver dollar coined at the mint and of every article of silver. Even more should this be true of what we eat or drink.

"I am not surprised, however, to hear the federal government cited as a successful example of adulterated money by those who practice the manufacture and sale of tainted and adulterated food and drugs. We cannot always control the goverment, but we can at least insist that the manufacture and sale of adulterated food and medicines shall be exposed to the public eye and punished by public law."

The next paper read was that written by Surgeon Walter Wyman of the U. S. Marine hospital service, styled "The Hygiene of Sailors Engaged in the Coasting Trade, and Especially the Hardships of the Chesapeake Oyster Men." Many steamers on rivers have no protection for their deck crews in inclement weather. He speaks after three years' experience in St. Louis and Cincinnati. One hundred thousand people in Maryland depend upon the oyster trade, and 300,000 persons obtain their living in some way from the oyster business; 20,000,000 oysters are obtained annualy and the total oyster bed area is 640, 000 acres or 1,000 square miles. Oysters are secured by tonging and dredging, the latter being the method most extensively followed, and the dredgers are the ones who suffer so many hardships. The crews of the vessels are gathered in the cities and are of a motly character. Many of the men are "shanghaid," that is kidnapped, as the service is sometimes very unpopular, owing to hardships and small compensation. It is said that in Washington there are regular press gangs who often take off youths of good family. The captains of the oyster vessels are usually very brutal, and on a par with the mates on Western boats. Many of the crews are to be found in hospitals suffering from frozen hands and feet; many of them also are knocked overboard by the irate commander. The captain, and necessarily his crew, are charged with lawlessness and often encroach upon the shallow waters reserved for the "tongers," sailing away before they can be captured. On this account many states must keep oysters navies, Maryland having eleven oyster ships and three steamers at an annual cost of $60,000. It must be remembered that dredging must be done by the men on open deck in cold water. The men work all day, with clothing wet and often frozen to their bodies, thus causing pneumonia in numerous instances. If a dredger gets sick he is entirely neglected by his mates who are too busy during the day to give him any attention. He is therefore compelled to lie in the narrow cabin for many days without a fire. Frost-bites are very common, and wounds received from the oysters are often poisoned by some means and the entire arm swells up and occasionally fingers are lost by the necessary amputation. Falls, blows from foreign bodies, etc., are among the most general causes of injury. The crank handle of the dredging machine is a murderous engine, murdering dozens every winter, and and the story of its victims can never be told. Many of these dangers are preventable, and the state of Maryland could easily enforce, with its oyster fleet, proper regulations.

A paper on "Cremation as a Safeguard Against Epidemics," by Rev. John D. Beugless, chaplain U. S. N., followed next. How shall we dispose of epidemics? Various means have been suggested and from them all we hope the best. Epidemics, however, still come. No cordon of soldiers, no quarantines can save us from epidemic, which comes by usual and unusual channels,. It comes on the wings of the winds and walketh in darkness. Having come shall we hope to drive it out by sending out quarantine vessels armed with chlorine, copperas and acids? You might as well pour upon it the spray of sweet violets. Shall we fumigate? You might as well burn sweet words. Disinfectants often turn out to be boomerangs, more dangerous than the disease. Whether microbes are the cause of the disease of the zymotic type or not, they are always present, and certain microbes always produce certain diseases. Disinfectants, freezing, drowning, burying and desiccating do not destroy any but the feeble microbes. Moisture and warmth seem to be necessary to their sustenance and our system of burial furnish immense magazines of these microbes to the earth. These exist for hundreds of years; and in Medina an epidemic was caused by digging up the bodies of those who died of an epidemic three hundred years ago. There is one thing, no disease germ can pass through the crematory fires and live to propagate its kind. Cremation is the only true germicide. Pope Clement V. escaped contagion by building a wall of fire around his palace. Thirty-three per cent. of our deaths are caused by zymotic diseases, which can be obviated only by cremation. Instead then, of laying our beloved dead into the cold bosom of

earth, let us incinerate them and thus return them to the original ashes from which they rose. Potters' fields are a disgrace to civilization and a pest to the community. Let crematories be established in connection with all public institutions and let this influential body memorialize congress for this purpose. But this is not enough. All garbage, all sewerage of the cities should be cremated, and thus will our land become the land of the living and not the valley of the shadow of death.

A brief abstract from a paper entitled "The Ultimate Sanitation by Fire," by Hon. J. M. Keating, Memphis, editor of the *Appeal*, was read by Dr. J. B. Lindsley. All methods of disposing of sewage matter in vogue at present are failures. All the great buildings in London for disposal of refuse of the Thames are far less useful than a simple crematory. The effect of sanitation by fire would prevent return of deleterious matter, as is at present the case; would increase the water supply, would put a stop to soil saturation and sewer gas; would reduce scavengering to minimum expense and obviate great systems of sewerage; put a stop to all nuisances complained of from defective plumbing; would prevent filling up of harbors with excretal matters; would prevent a wholesale destruction of fish, the poor man's free food; it would put a stop to the cess-pool system in villages, hamlets, towns and cities; it would solve all problems that now vex sanitarians from house connections by which the sewage finds its way to rivers and harbors; it makes a finality of all waste of cities.

Dr. John Morris of Baltimore opened the discussion. In the epidemic of 1855, the dead were buried only superficially in trenches shallow in depth. From experience gained there he had no doubt that cremation was the proper thing to use in time of epidemic.

Dr. Felix Formento of New Orleans said cemeteries are foci of diseases, and the ground in which yellow fever patients had been buried was saturated, a year after burial, with the same microbes present in yellow fever cases. The microbe theory is the correct one, the disease being caused by the reproduction ad infinitum of the microbe. Through earth-worms the microbes reach the surface of the earth, and cremation is the means of destroying them. He seconded the resolution indorsing cremation.

Dr. Geo. M. Sternberg, U. S. A., thought the reasons given for epidemics were not entirely satisfactory. It has been thoroughly demonstrated that in yellow fever there are no microbes, and in material examined within an hour after death no bacteria were found. The organisms of putrefaction destroy the germs of cholera and yellow fever.

Dr. A. C. Bernays of St. Louis thought cremation the best and only reliable means of destroying disease. Within the last ten years the germ theory of disease has been proved almost to a certainty, that is such diseses depend for life and sustenance upon these bacilli. Dr. Koch has shown bacilli of tuberculosis have power of subdivision, and can survive alcohol and even pure nitric acid. He also proved that the only way of sterilizing any vessel was a temperature of above 200 degrees. Celsius, some say 250 degrees. Whether the destruction of some of the microbes by cremation will remove the disease he did not dare to say. In a water-melon he discovered cystozoa, or animals living in a cell.

Dr. J. A. Raymond of Brooklyn protested against accepting the theory of such men as Koch who have made experiments only recently, and when he sees disinfection so long in use laid aside on the mere *ipse dixit* of men who will in six months be laid alongside of men whose errors are acknowledged, he wishes to earnestly protest.

Prof. G. H. Rohé of Baltimore added his protest also, and thought there was no more reason why bodies should not be as properly buried during epidemics as burned There is no evidence that any infectious disease has ever been communicated from cemeteries after bodies have begun to decompose.

Dr. Wm. Bailey, Louisville, asserted that cremation would not kill all organisms, and asked what would be done with those that escaped?

Dr. Formento read instances where contagious diseases had been communicated from graveyards. The only way to prevent a dead body from becoming dangerous is to do in an hour what nature does in many years.

The convention then adjourned until next morning.

THIRD DAY.

The session was called to order at 9·30 o,clock A.M. Dr. A. L. Gihon presided.

A letter was read from the Elks' Club, inviting the members of the Association to a reception at the club house on Friday evening.

Dr. Harvey Reed, of Mansfield, O., proposed that the School Hygiene Committee be instructed to formulate a practical system of school hygiene and report the same at the next annual meeting of the association. The resolution was adopted.

On the motion of Dr. E. M. Hunt, a resolution was adopted expressing the pleasure of the Association at the prospective meeting of the International Medical Congress in the United States in 1887.

The following new members were elected: G. B. Davis, Cincinnati; J. Rodgers, Madison, Ind.; Chas. Knapp, Evansville, Ind.; J. H. Wooden, Greensburg; William Sullivan, Rising Sun, Ind.; A. Fields, Jeffersonville, Ind.; J. A. Murphy, Cincinnati; William Freeman, Vevey, Ind.; C. G. Comegy, Cincinnati. John A. Dulaney, Covington, Ky.; M. H. Harding, Lawrenceburg, Ind.; George Sutton, Aurora, Ind.; Hermann Nagel, A. Bock, Willis Hall, J. H. McLean, D. Fee, St. Louis; Chas. W. Adams, Kansas City; J. W. Jackson, Kansas City; D. E. Burlington, Elgin, Ill.; and W. W. Harris, Birch Hill, Mo.

The first paper read was that of Dr. W. B. Conery, of the State Board of Health of Missouri, on "The Care of Stock in Transportation." He said the existence of Texas, or splenic fever, could no longer remain in doubt. The loss of stock on the northern ranges was an enduring evidence of the reality of the plague. After a careful investigation of the disease, scientists contended that it was epizootic in nature, contagious as to the members of the same herd, and that Texas cattle were invariably afflicted with it upon their native ranges,and that they carried it to foreign pastures. They carried the disease germs in their hair, in the stomach and alimentary canal and communicated it to the Northern cattle, even though weeks elapsed since the cattle passed over the trail. Texas and the other Southern plains must always remain the nursery or breeding grounds for beef cattle, while Colorado, Montana, Wyoming, Nebraska and other Northern States would furnish the grazing and maturing ranges. Owing to the influx of immigration into the State of Texas, farms and ranges were being fenced to such an extent that the herding, maturing and driving of cattle through the State was rendered almost an impossibility. Hence transporting by railway was being substituted for the old plan of driving the cattle to the northern ranges. The new plan also fully accounted for the recent dissemination of Texas fever into the extreme Northern States, and had brought about the discussion of the feasibility of establishing a national highway, or trail, with an average width of ten miles, through the Panhandle of Texas. Along the proposed national trail the yearlings could be driven in herds, and with strict care and observance of sanitary regulations, the possibility of transmitting fever to the cattle on the maturing ranges would thereby be avoided. The above scheme had many advantages and ardent supporters, but there were numerous barriers to be encountered in its successful consummation. There was the right of the adjoining States to legislate their own affairs, and without their full co-operation the establishment of the proposed national highway was impracticable, and the difficulties could not be overcome until the cattle men realized the importance of a rigid application of sanitary laws and of a thorough dissemination of sanitary knowledge.

The number of animals shipped annually from the ranges of the West to the great cities of the interior and seaboard is enormous. The distance traveled is so great that the journey, under the most favorable circumstances, would be attended with most insuperable hardships; as it is actually performed, it is accompanied by extreme suffering from want of food, drink and space. The cattle endure the agonies of a two weeks' journey in midsummer, suffering from hunger and thirst in sight of green fields, rivers and lakes. It is a common occurrence for cattle to be shipped from St. Louis to New York with but a single rest during the entire journey. The cars should be thoroughly cleansed and disinfected after every loading and shipment, and under no circumstances should they be overloaded or the animals crowded together. Such transportation renders animals unhealthy and causes much of the disease now prevalent. Fresh water, air and salt-pans should be accessories of cattle cars, and the animals should be daily inspected, and the wounded and broken down should be removed. There must be a thorough inspection of the food supply before we can expect the best results.

Dr. J. M. Partridge, of the Indiana State Board of Health, for the Committee on Cattle Diseases, reported that threatened epidemics of pleuro-pneumonia had appeared during the past year in several localities in the Union, but had been promptly suppressed by the sanitary authorities. He called the attention of the Association to the fact that the inland waters were not furnishing the population with the amount of food that their great extent might produce, and said that in view of the results that had been attained in States that were giving attention to restocking the lakes and rivers within their limits, it was a matter of importance to the people of the whole country. He recommended the appointment of a committee to consider the

question of the fish supply of the lakes.

Dr. S. S. Herrick, of New Orleans, called attention to the opportunity there would be afforded by the World's Exposition at New Orleans for making public such facts,as might be serviceable to the people regarding public health and sanitation, and moved that a committee of three be appointed to arrange for a display on behalf of the Association. The matter was referred to the Executive Committee.

Dr. A. N. Bell, of New York, of the Committee on Epidemics then submitted his report. The small-pox epidemic can be averted by proper vaccination; the lecturer recounted the sanitary measures used in Paterson, N. J., during the great small-pox epidemic in that city. The remarkable fact about the plague was that it raged most violently in the filthy portion of the city, and the lawless were the ones generally attacked, the shiftless and the abandoned of both sexes being the first to succumb. Rules for the restriction of scarlet fever and diphtheria were also adopted by the Paterson authorities, and regulations were strictly enforced against children in the public schools suffering from contagious diseases.

Dr. Jos. Holt, New Orleans, read his portion of the epidemic report entitled "Quarantine Sanitation," in which he vigorously attacked the detention system. He also explained at length the system in vogue in New Orleans.

Dr. A. N. Bell, chairman of the epidemic committee, then concluded the report.

"The Sanitation of the MississippiValley," by G. B. Thornton,M.D.,of the State Board of Health of Tennessee, then followed. The Mississippi river bottom, lying between the 37th and 29th parallels, or between Cairo and New Orleans, a territory of 32,000 square miles, is one of the richest sections in the world. It contains alluvial bottoms, is subject to annual overflows, and many places, once under cultivation, must necessarily be abandoned and thus revert to their wild state. This country is the true habitat of malarial diseases of all kinds. There is a marked difference in susceptibility to these diseases between the whites and negroes, and the former are far more susceptible than the latter, and do not stand exposure as well during summer and fall months. This section has been visited by the two great epidemics, yellow fever and cholera, on several occasions. The sanitation of the valley depends upon the following measures:

1. The reduction to the minimum of the causes of malarious atmosphere.

2. The improvement in the present method of living,

3. The prevention of the introduction of the infections diseases above mentioned.

The swamp lands are enormous, but the intensity of the disease seems to varywith different years,owing to a difference of atmospheric conditions. Overflows do not cause inevitably an increase of malaria or other disease, and they do not usually either cause or promote epidemics, therefore overflows are not usually dreaded. There is no adequate index to the condition of the bottom countries as far as health is concerned. Malarial diseases prevail most largely in the latter part of summer and fall, when the ground is covered with dew and the air is moist. The conditions necessary for the production of malaria are a heat of from 60 to 70 degrees Fahrenheit, permanent moisture and vegetable decomposition or emanations; that is heat, moisture and vegetable decomposition. The first essential step toward prophylaxis is to reduce to the minimum the two elements which are to some degree controllable; that is the moisture and vegetable decomposition, or the miasmatic emanations of the soil. The seasons being immutable the heat cannot be modified. Civil and sanitary engineering can so dispose of the water distributed over this country by the excessive spring floods and annual rainfall,as in a measure to control this element. This would require an effective system of levees, canals and reservoirs for holding back the waterfrom the upper tributaries, and increased rapidity of the overflow of the Mississippi, and thereby prevention of the dangers incident to the more tardy process of evaporation. The third factor, decayed vegetable matter and the deleterious elements of a fresh soil, is in process of being removed bythe constant clearing and cultivation of lands for agricultural purposes. The process of building levees, draining bayous,lakes and stagnant pools and removing the deleterious ferments of the soil by cultivation, is a slow process toward the sanitation of this vast delta. In the meantime it is well to consider the best methods for the preservation of health in the face of these opposing elements. The resistance to malaria can be increased by improved methods of living, especially among those not acclimated; good food, wholesome drinking water, suitable clothing, keeping out of the night air, strict abstinence from whisky, and comfortable houses will greatly facilitate the struggle with the disease. Individual hygiene is a necessity, but the class who observe it is very limited, and it may be said that there are fewer people in this section of the valley who enjoy the comforts of home;

life than in any other section of the Union. Those suffering most are Northern, often European, laborers working under contract. They have to live in miserable huts, with poor food and clothing, and usually have sallow complexions, enlarged livers and spleens, and suffer from what they call swamp-fever. Now that Congress has spent five millions of dollars to deepen the mouth of the Mississippi and has appropriated money for the construction of levees to prevent overflows, the question becomes one of more than local interest. Protection from overflows in the Valley becomes a matter vital interest to the people of the North and the South. This section is the agricultural center of the country and will contribute more to the wealth of the country than any other section of the Union. Civil engineers seem to agree that levees are the most efficient protection against overflows. Reservoirs at the head of the tributaries of the Ohio, straightening of channels by cut-offs, the closing of bayous and crevasses and the erection of levees are the practical methods of prevention.

"The Present and Future of Water Analysis," by Maj. Chas. Smart, Surgeon United States Army, member of the National Board of Heatlh, was the next paper. Organic matter collected by water is a mixture of many substances, animal, vegetable and mineral, carbon and nitrogen compounds predominating. It is not the dead organic matter which makes our water dangerous, but the living organisms. They are connected with vegetable decomposition and sewage. The living organism should become the object of persevering study, and the presence of bacteria should be carefully tested. The microscope offers the best solution of the question of a good water supply.

Dr. James E. Reeves, Secretary of the State Board of Health of West Virginia, read a paper entitled, "The Pollution of the Upper Ohio and the Water Supply of its Cities and Towns." The condition of health and probable duration of life of a people may be correctly measured by the quality and quantity of their water supply. There are two cities at the head of the Ohio—Allegheny and Pittsburgh—whose aggregate population is not less than 240,000. Besides refuse of all kinds, the Ohio is made the convenient receptacle for the carcasses of dead animals, and thousands of tons of corrupting matter are daily thrown into the stream, which supplies the water we drink. No wonder, then, that diarrhœa and typhoid fever are so common and the death rate from these diseases is so high. Generally speaking, waters that are free from the actively moving ciliated infusoria, and that present a comparatively dead microscopic field, are waters that have percolated through a very pure or a very impure soil. In other words, they are very pure spring or very foul well waters. Waters containing nitrates are regarded by Franklin, and Elkin of London as dangerous, even when containing a small proportion of these salts, and water containing nitrates is particularly to be avoided. It is not the ordinary organic matters of decaying garbage, animal fragments, etc., that are dangerous when taken into the system, but certain morbific, micro-organisms which may accompany them.

"The Relation of Depth of Water in Wells to the Causation of Typhoid Fever," by Dr. Henry Baker, Secretary of the State Board of Health of Michigan, was next read. The author showed that deaths from typhoid fever were dependent in many cases upon the low stage of the water in wells and occur in very warm and very cold weather. The temperature of well water has some slight effect upon health. In 1881 in Michigan, when typhoid fever raged, the stage of water in the wells of the State was exceptionally low. The question arises, is there a quantitative ratio between the two observed phenomena? From all obtainable evidence it would appear that in Michigan at least there is not the same relation of fever and levels in winter and summer. What constituent of drinking water, causes typhoid fever? Bacteria cannot exist in fresh well water, and the serous evacuations in cases of severe diarrhœa are probably the direct cause of typhoid fever, and in Michigan the fever increases every autumn immediately after periods when diarrhœa prevails extensively. A specific cause of outbreaks of fever has been determined by investigations of eminent microscopists who have cultivated the typhoid bacillus. How does typhoid fever depend upon low water in wells? A study of the relation of closets and wells will reveal the cause, for whenever the level of the water in the well is below that of the fluid in the closet there is a tendency of the latter to flow down into the well or into the waters near the well. The dilution of the poisons when the water in wells is high explains the decrease of typhoid fever during these periods. How can typhoid fever be prevented? The answer is in four words: Stop drinking contaminated water! To prevent contamination of well water is a much more difficult problem, and vegetable contamination must be avoided as well as animal contamination.

"The True Value of Chemical Analysis in

Determining the Hygienic Purity of Potable Waters," was read by Thad M. Stevens, M. D., of Indianapolis, Ind. It was an interesting treatise of the most successful modes of chemical analysis.

Mr. Henry Lamb of Rochester offered to give the Association $2,000 to be contended for next year by those contributing papers, the subjects being divided as follows:

First—Healthy Homes and Food for the Working Classes, $500.

Second—On the Sanitary Conditions and Necessities of School-houses and School Life, $500.

Third—On Disinfectants and Individual Prophylaxis Against Infectious Diseases, $500.

Fourth—On Appliances and Means for Saving Life and for Protection Against Injurious Influences of Work and Occupations, $500.

Essays must be ready on April 5, and become the property of the Association. Mr. Lamb also agrees to give $50to defray the expense of a Committee on Disinfectants. A committee to consist of five members, one to be named by the National Board of Health. three by the Executive Committee of the Public Health Association, and one by the President of the Conference of State Boards of Health, was asked to be approinted for the examination of essays and the awarding of prizes.

The donation was accepted by a rising vote and the matter referred to the Committee on Resolutions.

"The Manufacture of Soda-water from Polluted Well Water," by Dr. Frank R. Fry, St. Louis Medical College, was read. Most of the manufacturers of fountain soda-water in the city use well water. All of the wells from Chouteau to Cass avenue, and from the river to Fourteenth street are contaminated by sewage. There is great difficulty in contending with this practice, owing to the fact, that, although impurities have been discovered in the wells, a sufficient amount has not been found to justify the Board of Health in taking legal action and in condemning and destroying the well. The most profitable plan would be of course, to destroy and close up the wells, but the proprietors cannot see it in this light and fiercely resist the officers. It would, therefore, be of the utmost avail if this society would stamp its approval upon the condemnation of the use of well water in soda manufacture. Especially so, as the probability is that a similar state of affairs exists in other cities of the Union.

Dr. S. S. Herrick, Secretary of the State Board of Health of Louisiana, read a paper on "The Relation Between Underground Sewerage and Filth Diseases." The writer's conclusions were that underground sewerage plays no unimportant figure in typhoid fever, diphtheria and diarrhœa. Frequent inspection would be required in underground sewerage, but that is not always obtainable. The advantages of the system lie in a questionable economy, and in a greater degree of decency than is obtainable in any other way.

Dr. W. John Harris of St. Louis gave the main points in his paper, "The Chemical Disposition of Sewage." It has been stated that sewage would purify itself in three or four miles, but in London, in the river Thames, sewags was discovered fourteen miles from the place where it had been turned into the river. Mother earth is perhaps the proper disinfectant, but irrigation would not answer in clayey grounds. The most feasible process is now in use in Tottenham and Windsor —quicklime, potash and coal tar being employed.

Dr. E. M. Hunt, Trenton, N. J.; Dr. Harris, St. Louis; Dr. J. H. Raymond, Brooklyn; Dr. P. H. Pryce, Ontario; Dr. H. J. Herrick, Cleveland; Prof. Vaughan, Ann Arbor, Michigan.; Dr. Fee, Kansas City; Dr. Robert Moore, St. Louis, and others participated in the discussion of the papers.

Evening Session.

The evening session was opened by the president, Dr. Gihon, at 8:15, a large assemblage of ladies and gentlemen being present. Maj. George M. Sternberg, Surgeon in the United States Army, delivered an able and instructive address on "Disease Germs," which was listened to with close attention by the members and visitors present.

He began by correcting the statements that appeared in the morning papers, regarding his expressions of the previous evening, made in the debate on cremation, that he was a disbeliever in disease germs. On the contrary, he was a profound believer in their existence, but was not prepared to go to the length of accepting all that had been said and claimed regarding them by observers in different parts of the world. The speaker dwelt on the morphology of the pathogenic flora, instancing their great variety of form and their modes of multiplication by fission, budding, etc. He spoke of his labors in the investigation of the causes of yellow fever while a member of the commission which was sent to Havana several years ago by the National Board of Health to study the nature of that disease in its habitat. The multitudinous forms of bacteria, bacilli, spirilla were

spoken of, with suggestions as to the effect on the human system of changes or evolutions in their lives. Mention was made of experiments on rabbits in the inoculation of gutter mud and septic matter from various sources and of different kinds. The lecture concluded with the projection upon a screen of micro-photographs of various microbes, highly magnified, among others specimens of the bacillus tuberculosis. Each specimen shown was explained and commented on.

Dr. Bremer's paper was on "The Bearing of the Discovery of the Tubercle Bacillus on the Public Health." There were some people he said, who denied that Koch's discovery marked a progress in practical medicine, because it had added nothing to the therapy of consumption. The latter assertion must be admitted as true. They treated phthisis today as they did before the demonstration of the tubercle bacillus. But there was one point gained that would prove of incalculable importance—the etiology of the disease being known, one could in a measure, protect onesself from tuberculous infection. Consumption was a zymotic disease, which was both contagious and infectious. It might be transmitted directly from person to person, or indirectly by means of the atmosphere or food. The chief infectious material was dried tuberculous sputa. Care ought, therefore, to be taken to prevent the expectorations of consumptives from becoming dry and pulverized. It was dangerous to sleep in the same bed with a consumptive. Double beds ought to be discarded on general hygienic principles. People ought to be made aware of the existence of the disease. It did not benefit a patient or a patient's family to conceal the truth, especially since the dissecting table had revealed the fact that many patients recovered from phthisis. A well-founded hope of ultimate recovery might therefore be held out to patients. Carpets in a sick room were dangerous under all circumstances, but especially were they so in cases of zymotic disease, above all in consumption. In hotels and buildings of a public character, carpets ought to be abolished, because it was impossible to control their cleanliness and freedom from tubercular material. Raw beef should never be eaten, and milk should not be used in its raw state. Aside from certain diseases known to create a predisposition to consumption—measles and whooping-cough for instance—insufficient and unwholesome food, overcrowding, debauches, want of ventilation, and breathing space, were all close allies of the disease. Marriages between consumptives, could not by legislation or otherwise be prevented although such marriages were in a sense immoral. Moral suasion and scientific conviction were both equally ineffective in preventing such marriages. It was a fact, as common as it was deplorable, that those were most eager to propagate their species who were least fitted for generating life and least likely to give rise to a healthy and vigorous progeny. Again there were the many depressing factors of our civilization, intimately connected and interwoven with our social, commercial and industrial life, which all tended to pave the way for the invasion of the disease germ. To remove those factors would be to radically change our modern civilization—to realize the dreams of the most enthusiastic reformers—in short, it would be the establishment of the millenium. But much could be done to check and limit the disease by the means and precautions he had indicated.

On account of the late hour adjournment was then had until the following day.

FOURTH DAY.

The final session of the American Public Health Association was called to order on Friday by President Gihon, with a fair number of members present. The Committee of Arrangements, through Dr. Spiegelhalter, announced the programme of entertainment for the afternoon.

The executive committee reported a recommendation that a committee be appointed to confer with the authorities of the World's Fair at New Orleans, relative to a display in the interests of public hygiene. The report was adopted and the committee appointed.

A committee of seven to examine into the subject of disinfectants was next appointed.

A resolution to appoint a committee of seven to consider cremation as a sanitary measure and to report thereon at the next meeting was unanimously adopted, and the selection of standing committees deferred.

Committees on Incorporation and on State Boards of Health were then created, and a committee appointed on incorporation.

The Advisory Council recommended that the following gentlemen be elected officers of the Association for the year: Dr. James E. Reeves, of West Virginia, President; Hon. Erastus Brooks, of New York, First Vice-President; Dr. Henry B. Baker, of Michigan, Second Vice-President; Dr. J. B. Lindsley, of Tennessee, Treasurer; Dr. H. P. Walcott, of Massachusetts; Dr. Chas. Smart, of the United States Army; Dr. George B. Thornton, of Tennessee; Dr. D. W. Hand, of Minnesota; Dr. Gustavus Devron, of Louisiana,

and Dr. H. B. Horlbeck, of South Carolina, Executive Committee. The Council further recommended that the next conference of the Association be held in Washington, in December, 1885, and that the thanks of the Association be tendered to the Government of the Dominion of Canada and the Ontario Board of Health for their kind invitation to hold the next meeting in Toronto, and that the Secretary be instructed to decline the invitation. The Conference unanimously approved of the recommendations of the Council.

Dr. Reeves, the newly elected president, in a brief speech, thanked the Convention for the honor conferred upon him and presaged a brilliant future for the Society,

The reports of the Committee on Museum of Hygiene, by Dr. Henry P. Walcott, chairman of the health section of the State Board of Health, Lunacy and Charities, of Massachusetts; of the Committee on Vital Statistics, by Lieut. Col. John S. Billings, Surgeon U. S. Army, and of the delegates to the International Congress of Hygiene at The Hague, by Capt. Alfred C. Girard, Surgeon U. S. Army, were all read by title only and ordered printed.

The first paper read was that by Dr. W. W. Vinnedge, of the State Board of Health of Indiana. It was on the importance of thorough and complete isolation in scarlet fever cases. He showed how readily scarlet fever was transmitted from a convalescent patient to a healthy person, and urged that a child suffering from the disease should not be allowed to mingle with or even meet other children until the desquamating process which followed scarlet fever was over. The peeling disappeared last on the palms of the hands and the soles of the feet. As long as there was any peeling visible a child should be isolated. Generally isolation was necessary for seven or eight weeks, and occasionally as long as thirteen weeks.

Dr. B. F. Davenport, analyst of the Massachusetts Board of Health, read a paper on the "Administration of the Food and Drugs Adulteration Laws of Massachusetts." He reccommended that the milk sold by every dealer in a town or city should be analyzed at least once a month, and that other articles of food and drugs should be frequently submitted to analysis. To secure uniformity in analysis and in regard to standards he thought it would be advisible for public analysts in the United States to form themselves into an association like the Society of Public Analysts of Great Britain.

A number of papers on the hygienic situation of St. Louis were next read. Mr. J. D. Stevenson, the Health Commissioner, explained the organization of the Health Department, sanitary legislation and the abatement of nuisances; and Dr. Spiegelhalter, of the Board of Health, read a paper on the "Sources and Quality of the Meat and Milk Supplies of the City." He said the quality of milk supplied to a city was a most important question. The great difference in the rate of mortality of children under the age of five years in large cities and in the rural districts was due to a great extent to the poor quality of milk sold in large cities. In the way of milk inspection little was being done in St. Louis owing to the lack of funds. There were ordinances against the sale of adulterated articles of food and watered milk, but they were practically of no avail owing to the refusal of the Municipal Assembly to supply funds to the Health Department to enforce the ordinances. Nothing short of an epidemic would convince the legislative body of St. Louis that the expenditure of money on sanitary measures was money well invested.

He said the city was robbed of nearly half a million of dollars per annum by men who sold water for milk—one hundredth part of which would pay the salaries of a public chemist and his staff, who would soon prevent such wholesale adulteration of milk. Since the abolition of the office of City Chemist, nine years ago, the people of St. Louis had lost in the purchase of water in milk and in loss of cream as much money as would have built a new City Hospital, defrayed the cost of making the required additions to the Insane Asylum, and left enough to have built the much-needed respectable City Hall. He showed that $900,000 per annum was lost to the city through its adulterated milk supply, and contended that it was very poor economy to dispense with the services of the Public Chemist, the work of whose department would put a stop to the adulteration, or at least make adulteration dangerous to the milk retailer.

Mr. J. C. Cabanné read a paper on the same subject, in which he expressed the need of control over the milk supplies of large cities.

Papers on "Street Paving and on the Water Supply of St. Louis" were read by title only. Prof. F. E. Nipher, of Washington University read a paper setting forth the average temperature and prevailing climatic condition of St. Louis.

A resolution was passed expressing the regret of the Association at the death of Dr. Elisha Harris, of Albany, N. Y., one of its earliest members.

Mr. Robert Moore's paper on the "Public Sewerage and House Drainage of St.Louis;" a paper on the "Leading Local Industries of the City and their effect on the Health and Lives of the Operatives," byDr.George Homan,were read by title only, as were papers on the "Infant and School Populations and Existing Causes Unfavorable to their Health" by Prof. J. P. Kingsley, of the Missouri Medical College, and on the "Chief Local Factors in the Causation of Disease and Death," by Prof. Robert Luedeking, of the St Louis Medical College.

THE ADVISORY COUNCIL.

The papers having thus been disposedof,the President announced that the following gentlemen, one from each State, had been appinted members of the Advisory Council: Alabama, Dr. R. D. Webb, Livingston; Arkansas, Dr. J. R. Dibrell, Little Rock; California, Dr. F. W. Hatch, Sacramento; Colorado, Dr. Charles Ambrosk, Boulder; Connecticut, Dr. C. A. Lindsley, New Haven; Delaware, Dr. S. P. Bush, Wilmington; Florida, Dr. R. B. S. Hargis, Pensacola; Georgia, D. W. H. Elliot, Savannah; Illinois, Dr. H. A. Johnson, Chicago; Indiana, Dr. E. S. Elder, Indianapolis; Iowa, Dr. W. S. Robinson, Muscatine; Kentucky, Dr. Pickney Thompson, Henderson; Louisiana,Dr. S. S. Herrick,NewOrleans, Maine, Dr. C. G.Adams, Portland; Maryland Dr. G. H. Rohe, Baltimore; Massachusetts, Dr. S. H. Durgin, Boston; Michigan, Dr. Foster Pratt, Kalamazoo; Minnesota, Dr. C. N. Hewitt, Red Wing; Mississippi, Dr.W. Johnson, Jackson; Missouri, Dr. Joseph Spiegelhalter, St. Louis, New Hampshire, Dr. G. P. Conn, Concord; New Jersey, Dr.W. K. Newton, Paterson; New Mexico, Dr.W. T. Parker, Fort Union; New York, Dr. J. H. Raymond, Brooklyn; North Carolina, Dr. T. H. Wood, Wilmington; Ohio, Dr. Harvey Reed, Mansfield; Pennsylvania, Dr. Crosby Gray, Pittsburg; Rhode Island, Dr. C. H. Fisher, Providence; South Carolina, Dr. George Simons, Charleston; Tennessee, Col. D. P. Hadden, Memphis; Texas, Dr. R. M. Swearington Austin; Vermont, Dr. H. D. Holton, Brattleboro; Virginia, Dr. J. L. Cabell, Charlottsville; West Virginia, Dr. T. A. Harris, Parkersburg; Wisconsin, Dr.J.F.Reeve, Appleton; Dist. of Columbia, Maj. S.A. Robinson, Washington; United StatesArmy Maj. G. M. Sternberg, Baltimore; United States Navy, Medical Director A. S. Gihon, Washington; United States M. H. S. Surgeon, Walter Wyman, Baltimore; Bureau of Education, Hon. John Eaton, Washington, D. C.

Dr. Liston H. Montgomery, of Chicago. moved a resolution thanking the retiring President for the able, impartial and prompt manner in which he had rendered his decisions during the Conference, and the motion was carried by acclamation.

Dr. Gihon thanked the members for the compliment they had paid him, wished them all a pleasant journey home and expressed the hope that he would meet them all again in Washington in December next year. He then declared the Association adjourned.

PROCEEDINGS OF THE NINTH ANNUAL SESSION OF THE AMERICAN GYNECOLOGICAL SOCIETY.

HELD AT THE PALMER HOUSE, CHICAGO, ILL, OCTOBER 1–2.

[CONCLUDED.]

Dr. P. F. MUNDÉ read a paper entitled "Limits of Vaginal Hysterectomy for Cancer."

DR. MUNDÉ attacked a paper of Dr. Jackson,read before the society last year, most vigorously. The following points were asserted by Dr. Jackson: First, that a diagnosis of uterine cancer could not be made sufficiently to insure its entire removal by extirpation of the uterus; second, that when a diagnosis was made there was no reasonable hope for a radical cure; third, that extirpation of a cancerous uterus was a dangerous operation. The author reported two cases and exhibited specimens. He then discussed the propositions established by Dr. Jackson both clinically and statistically, and arrived at these indications for operation: first, absolute limitation of the cancerous disease to the uterus; second, the probability of an entire removal of the disease by high supra-vaginal amputation and cautery questionable; third, cancer or sarcoma of the body of the uterus; fourth, perfect freedom of motion of the uterus; fifth, capacious vagina; sixth, a sufficiently vigorous condition of the general system.

The speaker then went on to protest against the wholesale condemnation of a perfectly rational surgical measure on the ground that it is too dangerous, and not sufficiently beneficial, when statistics show results to the contrary, and amply justify the operation.

DISCUSSION.

DR. JACKSON.—Mr. President: I presume I ought to be honored in having my name so prominently brought before this society. So far as I am concerned, I am quite willing that it should, but I labor under a disadvantage at the present time. The paper which I had the fortune, good as it

now seems, perhaps bad, to write for this society has been attacked with such a strong array of artillery that I scarcely feel prepared to make a defense at all points, so I feel conscious that any reply I may have to make will be scattered. On this short notification I am not able to bring all the facts which I feel can be brought against this paper in such a way as to be effective.

Now, there are principles which underlie all therapeutic measures. There are surgical as well as medical principles, and the way to judge of a surgical proceedure is to submit it to some principle, which governs not only that issue but others of its kind. Operations for cancer, whether of the uterus or any part of the body cannot escape this rule. I claim that surgical interference, to be justifiable, should conform to the ends and aims of medical and surgical proceedures. They should alleviate suffering or prolong life. Now, gentlemen, when an operative proceedure does neither of these, I claim it is unjustifiable without regard to special successes. Statistics have been adduced here to support certain positions, and I am quite willing to submit any procedure to that criterion. Now the question arises, does extirpation of the uterus lessen human suffering, and does it save or prolong life? I maintain it does neither. Of course it lessens the sufferings of those whom it kills. But does it save life? We can only substantiate such points by statistics. In the paper that I read before the society last year, I made a careful calculation how many years the patients would have lived according to statistics. I then made an estimate of how many lives had been lost by the surgeon's knife. I showed by the figures that for two centuries life had been lost by that operation; that is to say, the aggregate number of patients who submitted to the operation would have lived two years longer if they had not submitted to the surgeon's knife. The number of cases that I reported to the society last year of vaginal extirpation was about 143 with a mortality of 28 per cent; that corresponded with statistics given by Hegar and others. Tables have been submitted here to show better results; but, taking the figures I have down we have yet a mortality of 24 $\frac{6}{10}$, not varying much from the former tables. We should ascertain how soon those that died, did die; how long these persons would have lived, and how much life was sacrificed during the operation of vaginal hysterectomy.

Dr. Engelmann.—I do not intend to say very much, Mr. President, because I agree most fully with everything Dr. Mundé has set forth. I think he has been misunderstood in regard to some points and I wish to refer especially to them. If I correctly understand him, he is not an absolute advocate of the operation. It is an operation which we are justified in testing. I do not think he is advocating it absolutely as yet, but is merely advocating the propriety of testing it. Let us remember the struggle which ovariotomy has had; and there is another operation, which is at present much in the same condition, that of oophorectomy; and many of us are still doubtful with regard to the proper field, still these are decidedly older operations than vaginal hysterectomy. This operation is as yet too young for us to arrive at a positive conclusion, and certainly we can not reach conclusions by theory and theory alone. I have had occasion to see operations and to know of operations with still better results performed since the paper written and read before the Society. The test is going on, and prospects towards furthering and sustaining the operation seem to be more and more favorable. Dr. Jackson has referred to only a few cases that lived as long as two and three years. I think he is looking at it with a good deal of prejudice. The operation is so young a one. We are now theorizing upon this subject. Time will very readily settle the question, and I presume if so great a percentage can be shown to Dr. Jackson as 185 cases out of 235 having lived for eight or ten years, or the disease has not returned, then, I think, he will join with us in considering it a justifiable operation. We are merely theorizing, nothing else. Since Dr. Mundé's paper was written I have statements from Martin, who has had 52 cases, now has 65, or perhaps 70 to the present time, with better results than he had at first. Of course we can say nothing as to the results of future operations. I certainly would be unwilling to say that it is an operation as much established as ovariotomy, but it is at present in a condition to justify a test. I believe that is all Dr. Mundé's paper claims, and I am of the opinion that theory cannot change this view of the question.

A Member.—Shcroeder and others of equal prominence have demonstrated the practicability of vaginal hysterectomy, and the results shown by them are favorable enough to justify the operation. Total extirpation of the uterus is warranted in cases were the disease is confined to the body of the uterus alone, or in those cases where the disease affects both the body and cervix, and does not extend beyond. I have had results which have extended over a greater period than any I have

heard expressed or presented here. Last year I reported six cases to the American Gynecological Society. The patients are still living, to the best of my knowledge, after a period of about five years. In only one of those cases has the disease returned during the past year. The other five are still living, and apparently as well as I am to-day. I have certainly had good enough results to encourage me to go on with the operation. When the disease is confined to the cervix as Dr. Mundé has stated, I think, it is the simplest and best operation; but, when it extends beyond the cervix, I should consider the operation not good, and would not commend it.

Dr. T. Gaillard Thomas of New York read a paper on "Extra-uterine Pregnancy, with a Report of Six Cases."

Dr. Thomas prefaced his remarks by a report made two years ago. He alluded to the dictum of DePaul that diagnosis at the third or fourth month was impossible, must be wholly repudiated. Experiments performed on rabbits by Leopold were touched upon in a rather epigrammatic manner,who stated the changes which followed after laparotomy. It had a remarkably direct and strong bearing on the destruction of the fetus by means of the galvanic current. Dr.Thomas fully concurredwith Leopold that recovery of patients after rupture of the Fallopian tube was much more common than is generally supposed. Twenty years ago Dr. Steven Rogers, of New York, advocated laparotomy and application of ligature for the control of hemorrhage from rupture of blood vessels in extra-uterine pregnancy, but he had little or no experience in the plan of treatment. The speaker then said that under such circumstances Lawson Tait operated in January, 1883, and in four additional cases in 1884, with four recoveries.

Discussion.

Dr. Mundé.—Dr. Thomas' paper has been very interesting as well as instructive to me. I have seen four cases of extra-uterine pregnancy. A lady called on me as to whether she was pregnant. She had large breasts, morning sickness,and signs of pregnancy as she thought. On examining her, I found a distinct mass which was attached to the uterus. I found the uterus not enlarged. I made up my mind that there was nothing in the uterus. I passed the sound, and found the uterus to be three inches in depth. I examined the patient again and found this mass, and I immehiately drew the conclusion that it was a case of extra-uterine pregnancy. After making another careful examination she had a good deal of shock, and was obliged to be taken home in a carriage. She showed signs of collapse. I found her in such a state of collapse that I thought a rupture had taken place. I thought of performing the operation of laparotomy. Pulse the next morning had arisen. Had I performed the operation of laparotomy, the result might have terminated in great fatality. Now, I think there is a good deal of safety in waiting sometimes before resorting to such operations. In another case of this kind I shall begin with the Faradic current, and do as Dr. Thomas does, gradually run with the cells. In this manner about twenty cases have been successful, and patients have all got well.

Dr. Reeve.—I find but little authority on the size of the uterus, but I am convinced that during a case of extra-uterine pregnancy the uterus is enlarged to a certain extent. A case came under my notice about two years ago with evidences of abdominal pregnancy. The uterus was small; its depth being about 2½ inches, normal. Others speak of it as being enlarged.

Dr. Wilson.—After listening attentively to Dr. Thomas' paper, I can but say, that I think electricity, beyond all question, is the thing to be carried out with success in cases of extra-uterine pregnancy. We know in all cases we can destroy the fetus.

Dr. R. B. Maury, of Memphis, read a paper entitled "A Case of Tubal Pregnancy with Rupture of the Sac."

The patient was 37 years of age, and came under his care for retroversion of the uterus. There was nothing to indicate disease of the ovaries or tubes. Patient continued well until September, 1883; at this time she was suffering a little from bronchial catarrh; for a period of three months menstruation occured for three weeks. On December 17 she was seized with bearing down pains, and felt as if pressing everything out of the pelvis. These pains lasted about two hours and caused her to lie in bed that day. Later, she had a severe case of cramps, and the 27th, menstruation came on in a normal way, and she passed several small clots. Dr. Maury referred to the views of Lawson Tait, Thomas and others. He thought that satisfactory results could not be attained from immediate laparotomy, and that it was consistent with sound surgical principles to defer performing an operation until all shock had passed away.

Dr. Edwin Warren Sawyer,of Chicago,read a paper on "Occipito-posterior Position Vertex Labors." He presented an analysis of 35 cases.

Discussion.

A Member.—I disagree with Dr. Sawyer in some points which he has set forth. In my

experience, I have never failed to see the occiput rotate forward. It always does. It does not do it at the top, but it will do so when the occiput gets low enough down, provided the child is in a proper position. It will turn forward if the head is properly flexed.

Dr. Reamy.—I have taken considerable interest in the paper presented by Dr. Sawyer, and I fully agree with him in some points, but of course, I could not consent to several others. I cannot concur with the statement that in very few instances normal rotation of the occiput forward will occur. When we come to discuss the propriety of waiting for rotation to occur, it is another question; but when a gentleman makes a statement that it *will not* occur, then I must take issue that *it does* occur, and occurs in the main, has as been claimed by most obstetric writers. It does not occur on that side. [Here Dr. Reamy took a stick and pointed it towards the left side of a diagram showing where rotation occurs]. I have kept my position and have watched the rotation, occasionally introducing my finger, and I have found out that rotation occurs as claimed.

Dr. Jackson expressed his concurrence with the suggestions of Dr. Reamy. It was not the forceps that enabled us to accomplish success in such matters, but it was the skill of the hands that held the instrument. It was simply the skill of the man using the instrument rather than the instrument itself.

Dr. Scott referred to the method taught by Lusk in his book.

Dr. Engelmann spoke in accordance with the suggestions and views entertained by Dr. Reamy.

Dr. Sawyer in closing, said he thought it advisable in some cases to place the woman on her side, but when placed on her back she was steadier, and in a more acceptable position. Assistants could hold the woman better; it was safer to administer anesthetics in that position.

Among those present were: Drs. Baker, Boston; Brown, Baltimore; Byford, Chicago; Dunlap, Springfield, Ohio; Engelmann, St. Louis; Foster, New York; Howard, Baltimore; Jackson, Chicago; Jenks, Detroit; Maury, Memphis; Reeve, Dayton; Sawyer, Chicago; Scott, San Francisco; Smith, Philadelphia; Van de Warker, Syracuse; Wilson, Baltimore; Johnson, Washington; Mundé, New York; Richardson, Boston, and Thomas, New York.

Guests: Drs. E. C. Dudley, W. E. Clark, F. P. Seeley, N. S. Davis. of Chicago; P. McClure, Dubuque; H. G. Dearborn, Nashua, N. H.; J. H. Carstens, Detroit; T. B. Harvey, Indianapolis; Frits Netsler, Stockholm; F. Woodbury, Philadelphia, and Wesley M. Carpenter, New York.

The Chicago Gynecological Society tendered a banquet to the members of the American Gynecological Society on Tuesday evening, October 1, at the Palmer House.

The following papers were read by title: "Hygiene of Pregnancy," by Dr. S. C. Busey, Washington; "Rapid Dilatation of the Cervical Canal," by Dr. W. Goodell, Philadelphia; "Physiognomy of Vulva as Sequence of Anal Disease," by Dr. Isaac E. Taylor, New York; "Early History of the Treatment of Vesico-Vaginæ Fistula in the United States," by Dr. Nathan Bozeman, New York; "Periodical Symptoms in Uterine Disease," by Dr. G. J. Engelmann, St. Louis; "Topography and Sectional Anatomy of the Female Pelvis," by Dr. B. Hart, Edinburgh, Scotland; "Fibro-Myomata of the Uterus," by R. S. Sutton, Pittsburg.

The following officers were elected: President, William T. Howard, Baltimore, Md.; Vice-presidents, W. L. Richardson, Boston, Mass., and Paul F. Mundé, New York; Secretary, Frank P. Foster, New York; Treasurer, Mathew D. Mann, Buffalo, N. Y.; Members of Council, A. Reeves Jackson, Chicago, Ill.; H. P. C. Wilson, Baltimore, Md.; Joseph Tabor Johnson, Washington, D.C.; Ely Van de Warker, Syracuse, N. Y.

The next meeting will be held at Washington, D. C., on the third Tuesday in September, 1885.

Dr. H. C. Wyman recommends enthusiastically fresh green leaves of Datura Stramonium as an application to painful joints. An experience of twelve years with them has taught him their value. He applies them for twenty-four hours at a time and says the relief of the pain is almost immediate.

According to a recent local census the population of Chicago is 643,000. The increase during the past four years has been about 28 per cent or 7 percent annually. Of the whole 78 percent are of foreign importation. In numbers the Germans predominate, then come the Irish and next the Scandinavians

—Gabriel Gustav Valentin, till 1881 Professor of Physiology in the University of Berne, died May 24. He was an excellent teacher and a profound physiologist, and was the author of several works on physiological subjects, among them two in Latin. His "Text-Book of Physiology" was translated into English by the late Dr. Brinton

ST. LOUIS MEDICAL SOCIETY.

REPORTED FOR THE REVIEW.

Stated Meeting, October 11, 1884.

Dr. McPheeters.—I recently had a case of traumatic tetanus under treatment, but the patient died and I did not think it worth while earlier to report it, these cases being principally of interest only when the result is recovery. A boy twelve years of age punctured his foot with a nail. As treatment I used in combination large doses of chloral, with bromide of potassium, veratum viride and calabar bean, and succeeded only in reducing the pulse and in controlling the convulsions. The patient died, having survived the invasion of tetanic symptoms about three days. I hear occasionally of recoveries, but they are infrequent. There was no swelling or inflammation of the parts. I commenced the treatment by removing all possible causes of peripheral irritation, making an incision in the bottom of the foot and removing a very considerable portion of the tissues.

Dr. A. Green.—It is asserted in some works that I have seen, that calabar bean and large doses of chloral have cured more than half the cases treated. I think, unless there is a foreign body at the site of the injury, we ought not to do any cutting at all; for cutting the part and of course the peripheral nerves, where the irritation is, makes the traumatism worse instead of better. In such cases as soon as we observe that the wound is clean, and that there is no suppuration whatever, we ought to leave the part at rest; the more we give it rest the better the patient is for it. Probably a large dose of chloral is the thing to give; but we ought to leave the patient at rest, as much as possible, otherwise the chloral and calabar bean will be of no avail whatever.

Dr. McPheeters.—I think the doctor is mistaken in the proportion of cases cured. I think the statistics will show that not one in fifty perhaps not one a hundred recover under any treatment, with calabar bean or anything else; the irritation is first peripheral and afterwards becomes central; and sepsis plays no part in it at all. There is nothing that pointed to sepsis in the whole history of this case. I would like very much to believe there was any treatment that would be successful.

Dr. A. Green.—I can show the doctor statistics in a recent work where it is reported that over fifty per cent have recovered—more than half—under that treatment. Then again if there is no inflammation whatever, the doctor will pardon me for making the statement, I cannot see the rationale of giving the patient veratrum viride, there being no inflammation.

Dr. Atwood.—As to the rationale of this treatment, I will say, that I have always treated cases of chorea with veratrum viride. I commenced it years ago and I have never had occasion to regret it. The philosophy of the treatment, as I take it, and that which suggested the use of the remedy in this condition of affairs, is this: That in chorea there is a lesion of the motor tracts, and that there is an irritation of some description which occasions unilateral convulsive effects. The object is to control the action of the heart, and by controlling the central organ we prevent lesion of the motor tracts and the irritation, to the extent previously prevailing. In other words the object is to quiet muscular irritability by reducing the force of the circulation; just as we do in the treatment of pneumonia, where we use veratrum viride and in the case of traumatic tetanus reported by Dr. McPheeters. Undoubtedly there is a lesion of the motor tracts, and it would be the same in this case as in the case of chorea sancti viti, where we desire to repress the force of the circulation so as to control the convulsive movement with the same certainty as in the case of chorea. In 1847 my preceptor, Joseph N. McDowell, treated a man named "White," who lived in this city; he was a steel pen manufacturer. He ran a pen beneath the thumb-nail, and as a result had tetanus. He was brought to Dr. McDowell for treatment and he was successful; there was a complete recovery. The remedies in the case were brandy and laudanum. Some years since I was called to see a boy, the son of a brother physician, who had received a kick from a horse over the left frontal sinus; there was a fracture of the skull with depression, and also a loss of brain substance. For six days the boy under my charge was treated with veratrum viride with a local application of cold to the wound, the effort being to reduce cerebral excitement and prevent inflammation. The result was altogether successful. At the end of that time he was rational, cheerful and there was no indication on the morning of the seventh day of the presence of tetanus. But while I was in the house and in the patient's room the boy complained, in the presence of his father and myself, of a difficulty in moving the lower jaw; and of pain in the angle of the jaw, I left the room sorrowfully, informed the father that his son had evidences of invading tetanus, the most common and early symptoms being manifested in this way. Very shortly afterwards the

boy had convulsions of the most terrific character. In this case I used calabar bean and pushed it until it produced relaxation of the sphincter of the bladder, and incontinence of urine. I made an infusion of tobacco, 30 grains to the pint of hot water, and after straining it gave it as an enema. I used counter-irritation on the back of the head and the spine. Such was the principal treatment. Large doses of chloral were also administered, but the case terminated fatally. The calabar bean was pushed to the very utmost. In another case where the second toe was mashed in some machinery—the case being a boy twelve years of age—the treatment was first with Indian hemp, and afterwards calabar bean. In that case chloroform was used freely; the amputation of the injured part, which had mortified, was also performed but without avail; death followed in that instance also.

Dr. McPheeters.—These statistics to me are not very satisfactory. A man might treat two cases and one prove fatal and the other prove successful; then he would have a large per cent in favor of cases successfully treated; but that would not amount to anything. We cannot draw general conclusions in medicine from the experience of any one man; a large number of cases and the results are required. In cases of traumatic tetanus usually the successful cases only are reported; the unsuccessful cases are ignored. I think the statistics will show, taking a large number of cases, that there are not five per cent of cures of tetanus by any treatment. Occasionally they recover. I have known of enormous doses being administered, of morphine, laudanum and whiskey; forty years ago that was the sole treatment; occasionally a patient will recover under that treatment. So in cases where chloral and the calabar bean and other remedies are given. I think, sir, statistics are worth very little unless they are more numerous than any one practitioner can produce from his own experience.

Dr. A. Green.—In order to ascertain the efficiency or non-efficiency of a certain drug, in any case, we must, in treatment limit ourselves to that drug. For instance, Dr. Atwood tells us, that when he used calabar bean, he also used tobacco and veratrum viride; he thinks that veratrum viride did a great deal of good. I formerly used it, but do not now. When I was in the army at one place where troops were stationed, pneumonia was reported as "deadly." In the case of a New York regiment at Port Royal, the chief-surgeon said to me; "Do you know that pneumonia is deadly here?" "Yes," said I, "and I know how to treat it, too." At that time Surgeon-General Hammond would not give us any calomel, and I gave my patients tartar emetic. At once I saw this would not do,and I then gave them quinine, brandy, and chloroform; and I did not lose a single case. At another place the chief medical officer came to me and inquired, "Will you please tell me how to treat this disease?" and he gave me a little outline of the cases and said, "How do you treat pneumonia?" I told him that I did not give tartar emetic, and informed him how I treated my cases. I will not deny that there are some instances in which veratrum viride in such cases might do good, just as bleeding will sometimes do good; but as a general rule it is not good practice. If veratrum viride will so affect the heart that no blood will go to that part which is affected,that part will die. I am only speaking of this so that we may try to find out the rational way of using these remedies. I wish to find out what the calabar bean and other things will do, so that we may know whether they actually do any good or not.

Dr. Bremer.—Some physician, in "The Medical and Surgical Reporter," gives a report of, I believe, eight cases of tetanus treated with strychnine. Now strychnine, considering its specific effects, would be about the last drug to be employed in such an affection; still the reported result exceeds by far the number of recoveries that Dr. Green reported. Out of eight cases of traumatic tetanus six got well. Now, if there is any drug in the whole materia medica, it is strychnine,which, in its toxic effects, will approximately produce that condition which we designate "tetanus." This gentleman pushed the dose to one-sixth of a grain. As I said before he had the most remarkable results—six cures out of eight. I will call this homeopathy illustrated with a vengeance; since strychnine produces artificial tetanus, he gave strychnine as a remedy in a case of tetanus and in very large doses. It seems to me, Mr. President, that a great many cases, that are reported as tetanus, and get well under this or the other treatment may be reduced, on closer inspection, to simple tetanoid convulsions. I saw a case of a gentleman in this city, not long ago, from whose hip a sarcoma had been removed. Shortly after the operation tetanoid convulsions set in in the corresponding lower extremity. The slightest touch to the skin of that extremity produced convulsions. They were, however, confined to that limb alone. Now these convulsions might have spread, and we might have had the semblance of a true case of tetanus. There was no lock jaw; there was

not this peculiar difficulty in swallowing. I have no doubt that a great many of these tetanoid convulsions are described and reported as true cases of tetanus; and, of course the result of such cases, reported as true tetanus, will make a very favorable showing. My own experience in the treatment of tetanus has been a very discouraging one. I have treated and seen a number of such cases–about seven cases. They were treated in the usual manner with calabar bean, chloral and the bromide of potassium and Fowler's solution; but these were all true cases of tetanus.

Dr. Dudley.—Will the Doctor give us the pathology of tetanus?

Dr. Bremer.—There is nothing positively known as to the pathological anatomy of tetanus. All the post-mortem examinations that have been made in cases of that kind were indefinite; not the slightest lesion has been found either in the spine or in the brain. Some authorities are disposed to consider it an infectious disease, as a disease due to pathogenetic germs, in accordance with the prevailing fashion of the day; but there is not the slightest evidence of such a theory at all.

Dr. Edward Borck.—I have had several cases of traumatic tetanus, a number of which I treated with veratrum viride and Fowler's solution, but none of them recovered. I have no faith in these remedies. There is only one remedy in which I have any faith, and that is chloroform; I think chloral might be better even than that. I remember one case in which a man stuck himself in the foot with a hay-fork; tetanus set in at once. I put him immediately under the influence of chloroform and remained with him perhaps half a day, six or eight hours; then I requested my assistants to stay with him. The moment he passed out from under the influence of chloroform, we gave it to him again; finally, the patient was enabled, when he came to, to take some nourishment; and soon after I would give him chloroform again, and kept on in that way till the man ultimately recovered. Not long after that his son was wounded in the arm. The boy was attacked with tetanus; I treated this case in the same way. I wish you to remember that I did not administer the chloroform and then go away, but I staid there to watch him, and I had my assistants there when I was not. A third member of this family got hurt and was seized with tetanus; I was out of town and I do not know how he was treated; very likely with veratum viride; he died. I recall another case in this city, which I treated successfully with chloroform. I do not know that this course of treatment will always prove successful, but the only successful cases that I have had were treated with chloroform.

Dr. Pollak.—Dr. Hodgen, a short time before he died, had a case of traumatic tetanus which he treated successfully with Fowler's solution. He stated then that no case of his had ever gotten well that had not been treated with this remedy. He failed in cases where he used both chloral and the calabar bean, and everything else that has been mentioned here, whilst those which he treated with Fowler's solution, did not die. I myself had quite a number of cases of traumatic tetanus; all of these died but one. In that case I used the calabar bean. The peculiarity of that case was that many months after the man got well, if you happened to stop him in the street to speak to him, he would recoil from you. For several months—long after he went to work—he was affected with this peculiarity. Whether he is well or not now, I cannot tell; I know that he continued to be affected with this peculiarity several months afterwards.

Dr. Edward Borck.—I have heard of Dr. Hodgen's treatment with arsenic, and tried it in one case; the patient died. I remember very well when a young man, my preceptor asked, "Why do you prescribe arsenic? I have tried it over and over again, and in my hands it has never done any good; but you give it, and seem to be successful?" I replied, "I do not know the reason why." It must be that we learn how to employ a certain remedy better when we use it constantly; we acquire more confidence in it, learn its effects and become expert in its use.

Dr. A. Green.—I remember the case reported by Dr. Hodgen and that he gave enormous doses; I think about an ounce of Fowler's solution in a day. Dr. Hodgen tried arsenic in other cases and did not succeed.

Dr. Pollak.—I did not say that he succeeded in all cases, but that those cases, which recovered, were those which he had treated with Fowler's solution.

Dr. Atwood.—I see that Dr. Outten, the railroad surgeon, is present. No doubt he has seen many cases of traumatic tetanus, and I would like to hear what his treatment has been.

Dr. Outten.—I have treated personally three cases of traumatic tetanus; of these only one recovered. I treated them with chloral and bromide of potassium. In one of the cases the metacarpal bone of the little finger of the right hand was crushed. The end of the bone seemed to produce irritation. I amputated the bone ten or twelve days after the injury was received, and at that time he

had convulsions. He had the tensest muscles I have ever seen; every muscle of his body was tense and rigid. The attempt to swallow water would excite convulsions which afterwards would pass away. He finally recovered. I used chloral and bromide of potassium, but came to the conclusion that the patient would have recovered if he had taken no medicine at all. I think no one form of treatment will effect a certain cure. If one examines the statistics prepared by Joseph Jones of New Orleans, tabulated from several thousand cases, in which remedy after remedy was employed and failed, he will he convinced that no one remedial agent will in every case prove efficacious; for we see there failure after failure in apparently promising cases; and in cases in which success was least expected, the patient recovered.

* * *

Dr. Atwood.—I desire to make a supplementary report in regard to a case which was at first in my hands but afterwards fell into the possession of an irregular in the profession. The case was a fibroid cystic tumor of the uterus; after diagnosing the case and consultation with one of our leading surgeons, who corroborated my view of the case, I recommended an operation. The lady declined the operation, and in a very polite note informed me she would seek assistance elsewhere rather than resort to such an extreme measure. The irregular went to see her and stated he had recently read in the journals an account of three similar cases occurring in New Jersey, which had been treated by a new remedy, and the results had been entirely successful. I stated, in giving the history of this case that at the time of my examination, I discovered an extremely sensitive region at the lower portion of the abdomen, just below the right hypochondriac region. The supposition at the time was that there had been a rupture of a sac. The irregular practitioner taking charge of the case, administered this new remedy, of which he had boasted as a curative agent for those in this condition. Three weeks thereafter on meeting the husband I made inquiry after his wife. He informed me she was entirely well; that the tumor had disappeared, and that there was in the right iliac region a small remnant of the tumor, but that it was not larger than a pear or an orange. Of course the consulting surgeon and myself felt mortified over the result. At that point, you remember, I ceased my relation of the history of the case. Now I have to state that very soon afterwards the swelling in the abdomen returned and that it enlarged to a degree fully as great as when I was first called to see the case, the abdomen being filled to greater extent than is generally seen in a pregnant woman at a full term. She finally died, of what is alleged by her physician to have been an ovarian disease. I mention the case to show that the supposition of the rupture of a sac, which I expressed at the time was the true cause of her temporary recovery, and not the homeopathic remedy employed. It was simply a rupture of the sac, and the disappearance of the tumor was simply the result of the absorption of its contents. Of course the volume of the tumor disappeared and afterwards it naturally enlarged again.

* * *

Dr. Scott.—I have come in from attending one of the oldest patients in St. Louis; he is within a few months of 93 years old. I visited him twice a day for the purpose of relieving him of his urine. He has an enlarged prostate, but is not as feeble as one would imagine a man to be at the age of 93. I simply mention the case from the fact of his great age. He has a sacculated condition of the bladder. On examination I found that the bladder lay on the left side of the median line in the left iliac fossa, and by introducing an instrument, I succeeded in evacuating the urine. I grasped the abdominal walls firmly, to keep up the stream, on account of the great relaxation of the muscular walls of the bladder. Another peculiarity incident to his old age is, that the arteries of the forearm are becoming atheromatous. The patient has only taken his bed within the last three days. He is a huckster and has a market stall. His family, who are very well able to take care of him, have always been anxious for him to quit that business, but he says, "No." He wants to make money and thus provide for himself in his old age.

[TO BE CONTINUED.]

AMERICAN ACADEMY OF MEDICINE—NINTH ANNUAL MEETING.

The sessions will be held in Hopkins Hall, Johns Hopkins University, Baltimore, Maryland, Tuesday and Wednesday, October 28 and 29, 1884, and the following rare and interesting programme has been prepared:

Tuesday, October 28, 3 p. m.

"The Relation of the Medical Colleges to Preliminary Education." By Peter D. Keyser, A. M., M. D., of Philadelphia, Pa.

"The Examination of Applicants for License to Practice, a Means of Raising the Standard

of Medical Education." By Edward Jackson, A. M., M. D., of Philadelphia, Pa.

"The Role of Bacteria in Infectious Diseases," By Henry O. Marcy, A. M., M. D., of Boston, Mass.

"The Trade Aspect of Medicine." By Albert L. Gihon, A. M., M. D., Medical Director United States Navy.

"The Induction Coil; Its Varieties and the Differential Indications for their Use." By A. D. Rockwell, A. M., M. D., of New York, N. Y.

At 8 o'clock, P. M., Address by Benjamin Lee, A. M., M. D., of Philadelphia, Pa., President, on "Differentiation the Test of Civilization: The Specialist and his Education."

WEDNESDAY, OCT., 29, 10 A. M.

"The Teachings Derived from Observations in 137 Abdominal Sections." By R. Stansbury Sutton, A. M., M. D., LL. D., of Pittsburg, Pa.

"Some Comparative Results of Treatment of Chronic Articular Osteitis of the Hip." By Virgil P. Gibney, A. M., M. D., of New York, N. Y.

"The Place of the Physician in Literature." By Charles C. Bombaugh, A. M., M. D., of Baltimore, Md.

"The Aim in Treatment of Angular Curvature of the Spine." By T. M. Ludlow Chrystie, A. M., M. D., of New York, N. Y.

"Physiology in Its More Public Relations" (Public health, physical culture, family institution, true civilization). By Nathan Allen, A. M., M. D., of Lowell, Mass.

"Statistics of Glaucoma." By Herman Knapp, A. M., M. D., of New York, N. Y.

"Specialties and Their Relation to the Medical Profession." By L. Duncan Bulkley, A. M., M. D., of New York, N. Y.

"Report on Laws Regulating the Practice of Medicine in the United States and Canada." By Richard J. Dunglison, A. M., M. D., of Philadelphia, Pa., and H. O. Marcy, A. M., M. D., of Boston, Mass.

MISSISSIPPI VALLEY MEDICAL SOCIETY.

DISCUSSION OF DR. BYRD'S PAPER.

DR. JOSEPH EASTMAN, Indianapolis.—Mr. President, I arise to thank Dr. Byrd for presenting this important subject, and more especially that he has brought thi sunusual collection of gall-stones. I am always glad to see pathological specimens—practical demonstrations of the ravages of disease. In the present advancement of abdominal surgery it seems our surgeons are not content with cutting into and removing from the pelvis—they now include all the abdominal viscera even up to the diaphragm. It is probable that in the future we will be able to do surgically what we have failed to do medically for the liver and gall-bladder. I am an advocate of prevention in all departments, and to that end we must remember that the elaboration of the nitrogenous compound of food may outwork the liver, and as a result we have disturbance in the secretion of the bile. Patients with crippled liver should live on fruits—become vegetarians excluding all nitrogenous food. I have great faith in phosphate of soda in large draughts of hot water before breakfast. Dr. B., has ably presented the subject. I would ask if the minute granular gall-stones said to have been taken from the gall-bladder of a homeopathic doctor could have determined his entering the 'pathic school of medicine.

DR. A. C. CORR, Carlinville, Ill.—The paper of Dr. Byrd is an excellent one and replete with much that would be valuable in treating cases of gall-stones. His reference to the use of sweet oil in such cases reminds me of an experience of mine, the relating of which may serve to prevent a similar error on the part of any who may know of it, while it will also add to the history of the varied treatment this terrible malady has received.

In Dec. 1869, I was treating a case affected with gall-stones, when in my perplexity I recurred to a paper in Chicago Medical Examiner, '67, page 469, as read before the Chicago Medical Society, by Dr. Ira Hatch, in which he cited two cases of gall-stones successfully treated with large doses of sweet oil. After detailing the symptoms he says:

"She was advised to take large doses of olive oil, to soften and expell the gall-stones. * * The first night she took half a bottle, and the two following nights the remainder of the bottle. It operated freely and brought off a great number of gall-stones resembling full-grown gooseberries in size and color, as they floated on the top of the water. They were soft and completely saturated with the oil and she was greatly relieved by the operation."

Of the second case he says: "she is now recovering her health surely and rapidly."

"I saved a few of the calculi to exhibit to the Society. They were then in good shape, but soft and perfectly saturated with the oil. I placed two of them on a paper and exposed them to the heat of the sun, to harden, but they melted down, completely dissolving in the oil, thus demonstrating the fact that biliary calculi are completely soluble in olive oil." * * "These concretions seemed to be composed mostly of inspissated bile, hardened around a small deposit of cholesterine

as a nucleus. In the centre of each calculus, there was a whitish substance resembling tallow softened by oil," etc.

Encouraged by Dr. Hatch's brilliant success I gave my patient the oil, "to soften and expel the gall-stones" and with the same results, even as to benefitting the patient. I gathered a number of the 'gooseberry-like concretions' and at one transmitted them to Dr. Davis for verification, to which I received the following reply:

"CHICAGO, ILL., Dec. 21, 1869.

"DR. A. C. CORR.—The specimen of biliary calculus you sent me, as you anticipated, had melted altogether before it came to hand. On testing it chemically it appeared to be not true biliary calculus at all, but the stearine from the sweet oil given farther than the patient could digest.

"I think if you will give any patient large doses of sweet oil and watch the stools you will find in one or two days the same little balls of stearine in abundance. Dr. Hatch, of this city, who first published the efficiency of sweet oil as a remedy for biliary calculi, was doubtless deceived by the same appearances. At least such was the result of trials I made with it in two or three cases.

"Yours Truly, N. S. DAVIS."

This is all the uncommon experience I have had with this disease. I hope others may not be so deceived, but may thereby give their patients, suffering with gall-stones, as much relief, and I thank Dr. Byrd for the suggestions which reminded me of what I have said.

DR. F. W. BEARD, Vincennes, Ind., said that the report of Dr. Byrd reminded him of a case that he had attended many years ago. He was called to see an old lady, over seventy years of age, that was suffering with bilious colic. This was one of many attacks. The gall bladder was enormously distended and seemingly adherent to the abdominal walls. He plunged a bistoury into it, making a free incision through which escaped the pent-up mucus stained with bile, and some gall-stones. This operation gave immediate relief and the patient continued well with the fistula open and discharging bile for about ten years. No inconvenience seemed to be caused by the loss of bile except the lack of color in the feces.

DR. BYRD, in closing the debate, said, "I am glad Dr. Corr has made the statements in regard to use of olive oil in the treatment of gall-stones. I never had any confidence in it. Of course I meant that the chloroform should be given by the mouth, but it might become necessary to give it by inhalation in case the paroxysm of pain was unusually severe. Dr. Beard's case of biliary fistula bears out the conclusions that I had arrived at and that have been taught by Mr. Lawson Tait. In that case as in most others that have been reported the loss of bile through the fistula seems to have caused no trouble except the esthetical one of lack of color in the fecal discharges, which will not disturb many people.

CORRESPONDENCE.

CASES FROM PRACTICE.

CHARLESTON, ILL., Oct. 1, 1884.

Editors Review.—I desire to bring to your notice a few cases that have come under my care the last year:

CASE I.—Mrs. S., aet. 46, nervous temperament, small frame, mother of one child, age 12 years. From the birth of the child to February, 1884, had suffered from a constant pain at the point of the coccyx at times excruciating, especially at menstruation. Aggravated by every action of the bowels, this was made worse by her taking morphia to relieve pain which made her very costive. She had been treated for prolapsus uteri, retroversion, anteversion, constipation, pelvic cellulitis, sciatica, kidney disease, ulceration of rectum, etc. She had passed pus at different times during the year before I saw her. I was asked to see the case. I refused to do so alone. From the length of time she had suffered I felt that I should only fail, as others. I agreed to see the case with Dr. Rowe, of Dudly, Ill., as council.

February 24.—We examined her under the influence of chloroform and looked first for malposition of uterus, but found none then for the ulceration of the rectum which disease did not exist, but we found a fissure in the posterior wall of rectum and to the left side. This I treated by slitting the mucous membrane and sphincter ani. Having done so I pushed the finger up the rectum farther, for the exploration of the parts and found a very movable coccyx, and upon touching it the patient complained of pain; so much so that while yet under the influence of chloroform she cried out from the suffering caused by the movement of the parts. Calling Dr. Rowe's attention to the mobility of this bone he said he thought it was the cause of so much suffering in connection with the fissure. After closing our examinations and the patient could talk, she told us that her greatest pain was at the point of the coccyx. Thinking she would get relief from what we had done we waited until March 24, 1884, when at the request of the patient I removed the coccyx. We expected to find considerable dead bone, as we concluded that the discharge of matter came from that cause. When the parts were carefully examined a very small bit of bone came away. The parts healed readily, and although I did not find as much ulceration as I was led to

think, the removal of what did come away has given great relief and she is almost entirely freed from those terrible paroxysms of pain she had before. The fissures were not well when the operation was made. Dr. Montgomery advised cutting them again, which was done. The fissures at this date are all healed nicely and now, six months after, she is almost well. She acquired the habit of taking morphine during her suffering and still she takes small doses of it for quieting her nerves. I find the operation a recognized one in such cases. The fissures were not cured by the cutting at first made, but have healed since the last operation for removal of the coccyx.

CASE II.—Dr. D., æt. 74 years, complained to me one-half year ago that his health was poor and said he thought he should quit the practice of medicine, at the sametime asked me to prescribe for him. I advised him to take calomel as I believed he had some derangement of the liver, He being strictly eclectic, refused to do so. He called Dr. Neal who is not in the practice but had been formerly and he treated him. I did not see the doctor until in November following, when I was called as a friend and found him badly jaundiced. There was some tympanitis, tongue coated and pulse very feeble; rejected everything taken into the stomach. The profession called, and each one had his diagnosis to make. The physical signs denoted, as we usually interpret them, that there was some derangement of the liver, pain in the right hypochondriac region, yellowness of surface, absence of bile in the stool and other signs with those. Some surmised closure of bile duct, others abscess of liver, others rupture of gall-bladder, and so on. But the doctor himself said, "My disease is in the duodenum. I think ulceration."

December 31, 1883, he died. A post-mortem was allowed, and after all the organs mentioned were examined and nothing found abnormal, except left kidney slightly enlarged, the duodenum was examined and one and a half inches from the pylorus was found a large ulcer through which had passed the bile as it was poured out of the gall bladder and then we had to confess our mistake.

I would say in this connection that we as a class and a profession do not make the effort we should to get postmortem examinations, either through fear of exposing our mistake in diagnosis or by the opposition of friends in the case. I for one should rather risk the exposure than to lose the opportunity of correcting our practice in after cases.

Respectfully, A. T. STEELE.

—Dr. John Collins Browne, of chorodyne fame, died at Ramsgate August 30th, at the age of sixty-six.

ITEMS.

—Diagnosis of Coccygodynia. To detect an injury of the coccyx the index finger should be passed into the rectum, and over the coccyx. You must be careful not to be misled by the statement of the patient, for the mere insertion of the finger is a shock, and the woman at once complains before you have pressed the parts. Before manipulating the parts, ask if it gives pain; then pretend to move the bone, and see if any complaint is made, after which get directly over the bone. In real coccygodynia the slightest touch will give very great pain. This is almost as sensitive as a caruncle of the meatus urinarius.—W. Goodell.

The average duration of life in Russia is said to be only 26 years.

—OPHTHALMIA NEONATORUM.—Dr. Sophus Meyer at the International Congress recommended the adoption by midwives, in every case, of Crede's method of prevention. The method consists in the instillation of one or two drops of a 2 per cent solution of nitrate of silver, dropping it on the cornea of the eye.

DEATHS IN ST. LOUIS FOR THE WEEK ENDING OCTOBER 11, 1884.

Small-pox		Convulsions and trismus	5
Measles		Heat stroke	
Scarlatina	0	Apoplexy	
Diphtheria	14	Other diseases of the brain and nervous system	9
Membranous croup	3	Cirrhosis of liver and hepatitis	2
Whooping cough	0	Enteritis, gastro-enteritis, peritonitis and gastritis	5
Typhoid fever	4	Bright's disease and nephritis	0
Cerebro-spinal fever	1	Other diseases urinary organs	1
Remittent, Intermittent, Typho-malarial, congestive and simple continued fevers	6	Diseases generative organs	
Puerperal fever	2	Diseases of the locomotory organs	0
Diarrhœl Diseases.		Diseases of the integument	
Under 5 years	19	Accidents of pregnancy and childbirth	1
Other ages	4	Congenital debility, malformation, etc	9
Erysipelas		Senility	3
Pyæmia and Septicæmia.		Surgical operations	0
Syphilis	3	Deaths by suicide	3
Inanition, want of breast milk, etc	7	Deaths by homicide	
Alcoholism	1	Deaths by accident	5
Other zymotic diseases		Execution by warrant of law	
Rheumatism and gout	0	Unknown	
Cancer and malignant tumor	3	*Total Deaths from all Causes*	155
Phthisis and tuberculosis Pulmon	15	*Total zymotic Diseases*	64
Marasmus—Tabes mesenterica and scrofula	8	*Total Consitutional Diseases*	28
Hydrocephalus, tubercular meningitis, etc	2	*Total Local Diseases*	42
Other constitutional diseases		*Total Developmental Diseases*	13
Bronchitis	4	*Deaths by Violence*	8
Pneumonia	4	*Unknown*	
Other diseases respiratory organs	2		
Diseases of the circulatory system	9		
Meningitis and encephalitis	1		

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Clerk of Health Commissioner and Board of Health.

THE WEEKLY MEDICAL REVIEW.

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THREE POUNDS AND TWO DRACHMS OF MERCURY CARRIED IN THE INTESTINAL CANAL FOR THIRTEEN DAYS.—Mr. A. K. Young records (British Medical Journal)a case of intussusception in which he had in vain tried a water pressure per rectum, the pressure corresponding to a column of water thirty feet high. He then introduced a tube into the stomach and with the aid of a funnel he poured in two pounds of mercury. This was at 6 P. M., May 7. At 10 P. M., one pound and two drachms more were introduced. This was the whole of the mercury in the hospital. The patient was sent to bed and directed to lie on his right side for an hour, and after that to study his own comfort.

The two following nights were reported as having been passed quietly. On the 10th, he was vomiting everything he took, and no passage through the obstruction had been effected. On this day he sent for his horse and cart to leave for home. Mr. Young made no objection to this plan, but rather encouraged it, with the hope that the jolting would facilitate the passage of the mercury. He started for home at 6 P. M., of the same evening. On the day after small quantities of the mercury appeared in the bed. From this time small quantities of mercury and small fecal discharges occurred daily. On the 20th a large fecal discharge occurred, but it was not until the next day, the 21st, or nearly thirteen days after its introduction into the stomach that the great bulk of the mercury was evacuated. Mr. Young says: Neither during the time it was blocked up in the abdomen nor at any time after its discharge was there any symptom, constitutional or local to indicate its presence. Mr. Young discusses the probable mode of action of the mercury under the circumstances. The explanation must necessarily be incapable of demonstration, but the interesting fact remains that the patient recovered after a diligent use of all the regular classical means, short of abdominal section, had been tried in vain.

ARTIFICIAL DEVELOPMENT OF CHOLERA IN ANIMALS.—The efforts devised by Koch to develop cholera in the lower animals illustrated in a remarkable way his ingenuity and perseverance, notwithstanding the fact that he was unsuccessful. But in these days of research the failure of one man, however famous, does not extinguish the ardor of others. We learn from the British Medical Journal that Drs. Nicati and Reitsch during their study of the epidemic in Marseilles have succeeded in a question which had previously baffled Koch's efforts. Having observed that no bile was found in the intestines in the most acute cases of cholera, they tied the bile ducts in dogs and then injected the cholera dejecta into the duodenum. The animals are said to have died in one or two days with all the symptoms of the most acute cholera; the intestinal contents exhibiting the comma-bacilli in great abundance. Similar results were said to have been obtained by the injection of the cultivated bacilli.

Claims are made in other quarters that the comma-bacilli can be shown to exist in the cases of cholera characterized as cholera nostras. Their identity, however, with the bacilli of Koch remains yet to be corroborated.

CHLORATE OF POTASH IN BURNS AND SCALDS. In a short paper read before the Surgical Section of the British Medical Asso-

ciation on the treatment of burns and scalds, D. J. Walton Browne gives his preference to a five grain to the ounce solution of chlorate of potash. He has tried continuous warm baths, warm water baths with sulphate of iron in solution, white paint in the form of carbonate of lead, the immediate application of a saturated solution of soda bicarbonate, carron-oil, oakum and the use of many ointments. He says it is really marvelous how soon the healing process commences after the application of the lotion, and how rapidly the raw surface is covered by the formation of new skin.

"In the treatment of burns and scalds of the second and third degree, the lotion is especially useful; in many of these cases perfect healing has taken place in four to five days. I could give the histories of many such cases."

"In severe burns of the fourth or fifth degree it is also useful, seeming to favor the formation of granulations after the separation of the sloughs, and certainly no remedy which I have tried so thoroughly keeps the wounds clean and sweet."

In superficial forms, after a few applications, a zone of new skin appears at the margins of the broken surface, and proceeds toward the centre until healing is perfect. It is quite common to see a border of newly formed cuticle in the short space of twenty-four hours. The method I adopt is the following: In superficial burns, I direct the blisters to be punctured, and a bread and water poultice to be applied over all the injured surface every fourth hour, until the cuticle has become detached; you generally find this accomplished upon the removal of the second poultice. I then commence the application of the solution of chlorate of potash, five grains to the ounce; pieces of lint of the required size, saturated with the lotion, are applied four times a day. The lint is covered over with gutta-percha tissue or oiled silk; all dressings being retained *in situ* by a bandage. The lotion must not be of greater strength than five grains to the ounce; of this strength it acts as a sedative, although at the same time stimulating the capillaries to the formation of new skin. If applied much stronger it causes pain; in fact, it acts as a caustic. In some cases, where the lint occasionally adheres to the wound, and is difficult of removal, without injuring the capillaries and causing bleeding, I add to the chlorate of potash solution some glycerine, in the proportion of two ounces to the pint. To prevent the lint from adhering to the wound, Dr. Harkin has for years used an ointment composed of chlorate of potash and lard, of the strength of five grains to the ounce."

"In the treatment of very deep burns I advise the application of poultices until all sloughs are separated; granulations then spring up,and nothing seems to increase their activity and vitality equal to the potash solution, of the strength of five grains to the ounce; should the granulations become weak, flabby, or too exuberant, we then use a potash-lotion of the strength of ten grains to the ounce, and at the same time prescribe a mixture of chlorate of potash and tincture of perchloride of iron, to be taken three times a day. At any time, should there be offensive discharges, one can combine the potash-solution with some permanganate of potash."

"In the treatment of burns and scalds, the indications are, after promoting reaction and calming the system: 1, to limit resulting inflammation; 2, to promote the sloughing process; 3, to favor the development of granulations; 4, to moderate contraction; and 5, to sustain the strength of the patient during the wasting effects consequent upon the protracted suffering which so often occurs."

"I submit that all these indications are fulfilled by the local and internal uses of the salt, the beneficial effects of which, in the treatment of burns and scalds I have had the honor of bringing before your notice."

Early Recognition of Tabes Dorsalis. —The early recognition of this difficulty is a matter of the most supreme importance. Dr. Julius Althaus thus expresses himself relative to his mode of investigation:

"At the initial period of the second stage of tabes a skilled objective exploration of the patient's condition is of paramount importance. The subjective symptoms of which he most complains are often misleading and comparatively insignificant; while the principal objective sign is often so concealed that only the specially trained observer is able to recognize and appreciate it. At this time, a patient may still be able to walk four or five miles at a time without much fatigue, and often scouts the idea that there is anything wrong with his walking powers. It is, therefore, necessary to make him go through a certain number of tests, some or all of which, when ataxy is present, will infallibly reveal it. The more important of them are, to watch the way in which the patient gets up from a chair or a couch; to make him stand with his feet close together, or on one leg, and with his eyes closed; to make him turn round quickly; and to go downstairs; when certain peculiarities will, in a general way, be noticed, which will betray the ataxy.

In addition to these tests, I will now describe another symptom, which I have not seen mentioned in any previous treatise on this disease, and which is, that the patient has considerable difficulty in walking backwards. This faculty, which is chiefly practiced and valued by courtiers, is nevertheless possessed by all ordinary mortals as long as they are in good health. For the tabid patient, however, it is mostly very difficult to walk backwards, at a time when he may have very little or no trouble in walking forward. His heels seem to catch the ground; he dare not move, for fear of falling; and if he succeed at all in walking backwards it is in a peculiarly halting and odd fashion, which at once attracts attention.

I noticed this symptom for the first time in the case of a gentleman, aged 24, who consulted me in February, 1882, and who was, in consequence of certain official duties obliged to walk backwards a good deal. For years this had been the easiest thing in the world for him; but during the last six months he had been mortified to find that he experienced considerable difficulty in accomplishing this feat. He told me that his health was otherwise excellent, with the exception of "rheumatic pains" in the limbs, to which he had been subject, off and on, during the last three years. I then examined him for the patellar tendon reflex, and found it absent on both sides. In the further course of the interview, I elicited that the patient had had syphilis ten years ago; that he had a temporary attack of double vision three years ago; that there was, occasionally, incontinence of urine in the morning, and habitually a feeling of numbness in the soles of the feet. The patient was still able to walk exceedingly well in the daytime and on a level road, but had found difficulty in walking in the dark. He went satisfactorily through most of the other tests, showing that he was just in the commencement of the second stage of tabes. The walking backwards was, indeed, the most troublesome thing he had to contend with; and the contrast between the clumsy and awkward way in which he did this, and the apparent ease with which he walked forward, was indeed striking. When attempting to walk backwards his heels seemed to become entangled in the carpet; he evidently did not know how to raise his feet properly from the ground, and on one occasion he would certainly have fallen unless I had supported him. All the muscles of the thighs and legs seemed to become rigid the instant he attempted to walk backwards, while in walking forward he appeared to have no difficulty whatever in bending his knees to the proper degree.

Since then I have made it a point to inquire about this symptom in patients suffering from tabes, and have found it present in the majority of cases. In an artist who is now under my care this difficulty is particularly annoying because it prevents him from taking a perspective of his pictures by walking backward from his easel. In this case there are no symptoms of tabes above the waist, so that the patient is able to paint as well as ever.

In difficult or doubtful cases, therefore, more especially in those at the very threshold of the ataxic stage of tabes, the symptom I have mentioned may put us on the proper

track and lead us to examine the patient, who shows it,for other symptoms of the malady. As tabes is still frequently confounded with gout, rheumatism, neuralgia, dyspepsia, idiopathic amaurosis, and other conditions, any addition to our means of diagnosis for that stage where the malady is not yet fully developed must be welcome, and this has been my reason for submitting it to your notice.

Fluid for the Sustenance of the Heart's Action in a Frog.—The fluid found to be the most efficient in sustaining what may be called a normal action of the extirpated heart of a frog as used in Dr. Sidney Ringer's laboratory is given by Dr. D. W. Buxton. A solution of sodium chloride 0.75 per cent is used as the general medium; to 100 c. c. of this one cubic centimetre of a one per cent solution of calcium chloride is added; a similar quantity of a solution of bicarbonate of soda of the same strength and 0.75 c. c. of a one per cent solution of potassium chloride. With a fluid made up in the above proportion the heart continues to beat with the same regularity as with a true blood circulation.

Local Anesthetic for Mucous Surfaces. —At the Ophthalmological Congress at Heidelberg, (Medical Record Oct. 11), the anesthetic properties of a two per cent solution of the hydrochlorate of cocaine was demonstrated on a patient before the Congress. Two drops of the solution were dropped into the eye of the patient and after an interval of ten minutes it was evident that the sensitiveness of the cornea and conjunctiva were greatly diminished. Two more drops were then put into the eye and after another period of ten minutes the cornea could be indented with a probe without giving rise to any sensation of pain. Before the experiment the eye on which the observation was made was as sensitive as the eye which was not subjected to the observation. The possible advantage to be derived from this agent is great almost beyond calculation. It appears that the observation was made by a student of medicine in Vienna by the name of Koller. It is also stated that it was previously used by laryngologists to reduce hyperesthesia of the pharynx and larnyx.

No sooner was Dr. Noyes' communication received in New York than the ophthalmologists there resorted to its use and by its aid operated for strabismus on children and without giving any pain and without the administration of ether or chloroform. It seems only necessary to introduce two drops of a two per cent solution of the hydrochlorate of cocaine at an interval of ten minutes in order to produce complete anesthesia of the superficial tissues of the eye-ball. It does not seem possible that it can have any deleterious influence to offset its advantages. The ophthalmologists who have already spoken of its virtues are Drs. Agnew, Moore and Minor.

Tests for Albumen in the Urine, New and Old.—These have been made the subject of some remarks by George Johnson, M. D., of King's College Hospital, in a late number of the British Medical Journal. He refers to the fact that mucin, which is contained in all normal urine in a small but variable proportion, is precipitated both by dilute mineral and vegetable acids. Now the test with acidulated brine contains hydrochloric acid, and the tungstate of soda and potassio-mercuric iodide require the addition of either citric or acetic acids before they act as albumen precipitants; and they, one and all, by the reaction with mucin, slowly cause, in most, if not all, normal urines, a cloudiness more decided that than which results from the action of the acids alone. But, he claims, with picric acid the case is different. In the form of a saturated aqueous solution, and uncombined with any other agent, it is a most delicate test for albumen; and it gives no precipitate in normal urine, unless an acid, such as citric or acetic acid is added.

The only precipitates other than albuminous which may result from picric acid, employed alone, are urates, which rarely occur, except when the mixture is allowed to stand for a long time; peptones, which however

are exceedingly infrequent; and vegetable alkaloids, such as quinine, when large doses are taken. All these precipitates, however, differ from an albuminous precipitate in the fact that they are readily and completely redissolved by heat. In testing urines which contain a mere trace of albumen, it is important to remove any turbidity, Urates should be cleared up by heat, suspended mucus and other particles by filtration. Phosphatic turbidity is cleared by the picric acid alone.

That picric acid is a more sensitive test than heat and nitric acid is proved by taking an albuminous specimen of urine and gradually diluting it up to a point, where heat and nitric acid fail to give a re-action. At this point picric acid still gives a distinct re-action.

The main advantages of picric acid as a test for albumen are, that instantly small amounts are detected, that heat and nitric acid fail to indicate; an insufficient amount of the test does not, as is the case with nitric acid, prevent the subsequent coagulation by heat; neither, on the other hand, does an excess of picric acid redissolve the precipate, as does an excess of nitric acid.

The fact that with caustic potash, the picric acid is an infallible test for sugar, may be said to more than double its value as an urinary test.

The picric acid which is used for sugar-testing should be purified by recrystallization. The commercial samples usually give a red color when boiled with liquor potassæ. On boiling a mixture of one volume of saturated solution with half its volume of liquor potassæ, the liquid should be pellucid, and of a pale lemon yellow color with no red tinge. Any impurity so indicated, may be removed by solution and recrystallization.

Outbreak of the Siberian Plague in Russia.—We learn that several times during the summer, news has reached Berlin of the outbreak of bubonic plague in the neighborhood of Bagdad, of malignant epidemics on the Turco-Persian frontier, and of Siberian plague in Russia; and it was said that the authorities were not taking proper precautions against the latter. Rumors have been again current of the outbreak of Siberian plague in Russia. The rumors have been persistently denied, but it seems now certain that it is at present raging in the immediate neighborhood of Odessa. At the beginning of September a peasant died from the plague in the hospital of Odessa, and since then four others have been brought in suffering from it, one of whom had, according to the latest information, succumbed to the disease.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

REPORTED FOR THE REVIEW.

[CONTINUED.]

Dr. Loftus.—I have noticed a reference to a paper read before the International Medical Congress relating to the treatment of phthisis with a preparation of mullein leaves. The paper was read by a physician from Dublin, I think. I thought, that if anything was known of the use of that plant that the American physicians ought to be in possession of it, as the plant grows almost everywhere that I have been in this country. I wish to inquire of the gentlemen present what has been their experience with this plant. I have seen it tried in the treatment of asthma and in some cases it has given considerable relief and at last effected a cure. It was generally used in those cases by smoking; in fact, I never knew it to be used in any other way. In the country, I think it is used for various purposes; but I never before heard of it being used in the treatment of phthisis.

Dr. Atwood.—I have for twenty years used it in the treatment of asthma, and always with seemingly good results. I have used it in the form of a mucilage, and in the form of a syrup, but never used it apart from other remedies, always in combination with them, e. g., iodide of potassium and arsenic. It is regarded as simply a demulcent, just as slippery elm and flaxseed. I think I discovered medical virtues in the mullein for the treatment of asthma.

Dr. Scott.—I read that article and I was a little surprised to see that the physician spoke of it as a new remedy. In coughs and colds, and especially in bronchial coughs, it is a very common domestic remedy in this

country, and has been used for years. It is used as a demulcent by straining and making a syrup of it.

Dr. Hurt.—I have known it to be used and spoken of in countries where I have traveled, as a domestic remedy for lung troubles, consumption included. I am so favorably impressed with what I learned about it from domestic sources, thatI tried, not more than three months ago, to induce a patient of mine, who has since died of phthisis, to try it; but she was troubled so much with nausea, that she was afraid to try anything, and died, in fact, almost from starvation. I glanced at the paper referred to by Dr. Loftus hurriedly this morning. I think it is usually administered in an infusion of milk. I always use it with milk; it was tried in water and in the form of extracts, but it was not well borne on account of its unpleasant taste. It was not successful in any form except when used in milk, and in that form it is said to be superior to cod-liver oil for increasing the weight. The secret of this perhaps is due to the nutritious property of the milk. I am inclined to think favorably of the remedy and to think that the profession will do well to test its merits. The plants, where they are abundant furnish a great impediment to agriculture, but yet may prove to be the most useful of remedies after their medicinal properties are properly tested.

Dr. A. Green.—Many remedies are sometimes useful in asthma. In the great majority of cases, in which physicians say they have derived benefit from such and such a remedy, the patient is usually afflicted with bronchial catarrh, and not with true asthma. In their treatment they simply remove or ameliorate the bronchial catarrh,and may be deceived by believing that they have cured the asthma. I would ask did all patients who actuallyhave asthma, or are predisposed to it, receive benefit from these remedies. Have they removed by means of these remedies the asthma or the predisposition to asthma, besides removing the bronchial catarrh?

Dr. Moore.—I have a case, which answers that question affirmatively, in the person of a lady, 65 years of age, who has been asthmatic for 25 years, a confirmed patient. As the doctor says, she has asthma without any apparent cause and has had it at all seasons of the year. In this case Grindelia Robusta not only relieved her at the time, but for months afterwards she was entirely free from an attack, and since that time the attacks have been much lighter and less frequent. I have found this the best remedy to use for these confirmed conditions.. I think the doses ordinarily administered are too small and that the intervals at which they are given are too long; 20 to 30 drops every two or three hours, in some cases, and 20 to 50 drops in other cases, in the period mentioned is the usual dose. I have given 60 drops in that period with the very best result and with no bad effect afterwards. I did not combine any other remedies for the simple reason that I wished to test the value of one remedy. Combining iodide of potassium with these remedies renders it impossible to isolate and determine the effects of any one, and for that reason I have given it alone.

Dr. Mulhall.—I wish to report the favorable effects of that remedy in the case of an old lady 65 years of age. She was apparently cured. I think her cure was owing to this fact, that at a certain period of a patient's life there is a tendency to spontaneous recovery from asthma, especially in those who have it without chronic bronchitis. My own father is an example. He suffered 35 or 40 years from asthma, and for some time had chronic bronchitis. For the last seven or eight years he has been entirely free from asthmatic attacks, though his chronic bronchitis still exists. If we take a remedy which is an expectorant, such an one as Grindelia Robusta, and give it to a patient of that age, it lessens the peripheral irritation and hastens the tendency to recovery from bronchial asthma.

Dr. Moore.—I would like to ask Dr. Mulhall if the cure, effected after the patient has arrived at an advanced period of life, is likely to be permanent, and is the cure likely to be accomplished rapidly or by gradual stages?

Dr. Mulhall.—By gradual stages. In the case of my father convalesence, resulting in recovery, embraced one entire winter. The following winter,as stated, he had no asthma whatever. I have never used the remedy. I know a physician who administered it in about 60 cases, and his results did not speak much for it. He said, if I remember right, that it is more efficacious in those cases which are accompanied with bronchial catarrh; that he rarely observed any effect whatsoever in cases of pure asthma, unaccompanied by bronchial catarrh.

Dr. Atwood.—I have had ample opportunity to test the merits of Grindelia Robusta in the treatment of asthma. For many years, ever since its introduction, I have made use of it and in only one case I observed permanent results. I remember my treatment of a lady, 40 years of age, who had been afflicted with asthma from the time she was 15 years of age. The paroxysms were of the most violent character. She was obliged to sit upright in her chair, struggling for breath. I gave her about the fortieth of a grain of atropine

hypodermically, and before I could cleanse the syringe, and put it in the case she was perfectly relieved and fell asleep. I continued to use it for some time until she seemed to be recovered. She finally discontinued the use of it for some time. The attacks returned and with such violence, that I finally persuaded her to keep it up till a perfect cure was completed, though her asthma had existed for years. She finally died of phthisis pulmonalis; but had entirely recovered from the asthma.

Dr. Newland.—A few years ago I was called to see a young girl, 12 or 13 years of age, suffering from asthma. She had had no sleep for three or four nights. I gave her a dose of morphine and chloral for the purpose of inducing sleep. To my astonishment, in the morning she not did suffer from the asthma. She slept splendidly ever after and finally got well. This remedy will not cure every case, but in this it gave relief, and at last effected a cure. The dose I gave was 20 grains of chloral and ¼ grain of morphine.

Dr. Scott.—I think we are shooting wide of the mark when we relate the cases in which we have relieved the symptoms only for the time being. Almost any of these remedies will relieve; some of the simplest will do it at times, and then again we must resort to those of a more powerful nature. Most remedies, however, are only calculated to give temporary relief. One of the simplest remedies is a hypodermic injection of morphine; this I have used with good results in arresting the paroxysm, and have followed it with a dose of atropine. A solution of morphine will do the same thing, so will an infusion of stramonium, which only acts as an expectorant. These remedies do not go to the root of the disease. In order to get rid of the disease we must direct our remedies to the cause, which resides in the nervous system. Then arsenic and iron and strychnine become our sources of resort; these are the remedies we must rely upon, and not antispasmodics. It is only by treating the nervous system that we can get rid of the cause. I look upon it as one of those diseases in which very few cases have been permanently relieved.

Dr. Bremer.—I knew a gentleman who was subject to asthma and obtained relief by simply chewing roasted coffee beans; and of another gentleman, a very rich man, who possessed a very fine estate in the neighborhood of Paris, who had been suffering from asthma for quite a number of years. He went one day to a livery stable in one of the densely populated quarters of Paris, and there felt remarkably free from his "air-hunger," I will call it. He then came to the conclusion that the exhalations from the horses and from the dung produced the favorable effect, and in consequence had a chamber arranged over his horse-stable, where he slept. The effect however was quite temporary; he then went back to the stable in Paris, where he had his first experience, and got the effects of the inhalation of that air; he there met with the same experience as before. He then left his estate and moved into the narrow and filthy street and rented a room in the neighborhood of that stable, and was free from asthma as long as he remained there. Now there is no satisfactory explanation of that fact, but fact it was. It shows that asthma is a very capricious disease and sometimes the most capricious remedies will effect a cure.

Dr. Scott.—The case related is not an unusual one. Sometimes a person living on the lower floor may leave that room and go up stairs in the same house, and be free from asthma. Or a person may live in one part of the city and have asthma and move to another part and be free from it. I cannot understand why this is the case, but such is the fact.

Dr. Jordan.— I know a case of a lady who came here from Baltimore; she was taken with asthma—had never had it before—and all the remedies that could be used proved unavailing. On her return home she sent me word that the very day after she reached home she was effectually relieved from asthma, and never had a return of it. I knew a medical student attending lectures in Baltimore, who was there seized with asthma. He was compelled to give up his studies entirely and leave the city in consequence of it. As soon as he left the city he had no asthma. There is no explanation of these two different conditions; one going away from the city became affected with asthma, and the other going to the city had the same experience.

Dr. A. Green.—I wish to ask Dr. Bremer if the patient in Paris, who went to live over the stable, ever tried ammonia?

Dr. Scott.—He did not receive the same benefit when he went to sleep over his own stable.

Dr. McPheeters.—We all know that asthma is a very capricious disease. There is no rational mode of explanation why one person will enjoy an immunity from it and another will be affected with it under the same influences. I know that a change from one room to another in the same house will sometimes afford relief to a person suffering with it.

We all know the common repute of the climate of Denver; it is the haven of asthmatics. I have had considerable experience in the treatment of asthma; have half a dozen cousins subject to it. Asthma is a term of very indefinite significance, and there are very different forms of asthma; there is bronchial asthma; but the nervous forms of disease cause us the most trouble. I agree with Dr. Scott that the anti-spasmodics will only give temporary relief. I have derived more benefit and effected more permanent cures with large doses of iodide of potassium than with any other single remedy.

Dr. Pollak.—I can relate the case of a lady who has been subject to frightful attacks of asthma. Two years ago she was invited by General Pope to go across the plains. The moment she reached Colorado she was perfectly well. She thought then she could return home and enjoy life, but no sooner had she reached Cincinnati than the attacks returned, and she has been bedridden ever since. I have used nitrite of amyl.

Dr. Scott.—What were the after-effects?

Dr. Pollak.—I have never seen any bad effects from its use. I have used it to a considerable extent; have tried it on one hundred cases with good results. For the time being it looks very frightful; the patient turns sick and pale and feels very badly indeed, but that feeling subsides in a few minutes.

Dr. Scott.—The reason I asked why there are any bad effects from it, is because I feel the effects of it, in my own case, for some three days. In the first place there is flushing of the face, then a breaking out into a profuse perspiration and a sickness and dizziness in the head, which lasts three or four days, and also nausea; so much so that for the first five or six hours I am compelled to keep perfectly still. I believe I would rather have the asthma than to take nitrite of amyl.

Dr. Spiegelhalter.— I knew a girl about twelve years of age. She had frightful attacks that lasted from 24 to 36 hours; it was a pitiful sight to see her. I tried everything without any beneficial result at all; finally I succeeded in relieving her by hypodermic injections of morphia. I tried that for some time. She afterwards took it for six weeks and was free from the asthma for about two years. As soon as she felt relieved she became somewhat negligent. The affection came back again with great force, but she concluded she would not try it again, but took Fowler's solution for six weeks. I gave it to her three times a day, and now she is practically free from it. She has a splendid voice and sings in one of the churches of the city. In another case I tried it and had similar success; I had previously tried almost everything.

Dr. Scott.—Two or three years ago a man from Ohio, a land speculator, came to my office; he was on his way to Texas. He asked for some remedy for asthma; I told him to take an ordinary cob pipe and get some stramonium and smoke it. He did so and afterwards I received a very grateful letter from him stating that by the remedy, which I had prescribed, he was cured. I think the change of climate effected that cure, but he attributes it to the smoking of the stramonium leaves.

St. Louis, Oct., 18, 1884.

A Stated Meeting of the St. Louis Medical Society was held at the usual place of meeting, commencing at 8 o'clock p. m. G. F. Dudley, M. D., President, in the Chair.

In the absence of the Secretary, Dr. Rumbold acted as Secretary.

On the conclusion of the routine business of the evening the following proceedings were had:

Dr. Hughes.—Mr. President, I am glad to announce that Dr. A. N. Bell, the Editor of the "Sanitarian," New York, a gentleman well known throughout this country, is here with us to-night, and I have the pleasure of presenting to the society, and to those who take an interest in sanitary matters, some copies of his journal which is the oldest sanitary journal not only in the country, but the oldest continuously sustained journal, I believe, in the world. I move that Dr. Bell be allowed the privileges of this chamber and be invited to take a seat on the floor.

The motion was carried.

Dr. Bell.—Mr. President and gentlemen, I appreciate the honor you do me to-night. I happen to be in St. Louis at the present time in attendance on a meeting of the "American Public Health Association," with which I have been connected from its birth up to the present time. We shall never cease to have a very lively recollection of the meeting that has just adjourned, since it has been one of great interest. Having attended all the annual meetings of the association from the time it was organized up to the present time, but one, I can bear cheerful testimony that it was, in my judgment, the best in several respects; not only from the attention it has attracted and the publicity given the proceedings in the leading newspapers here, but by the more important feature

of the work done by the society during the year. More original work has been done by the "American Public Health Association" during the last year than has ever been done during any one year, not excepting that which attracted so much attention six years ago, on account of the yellow fever. The prospects are that, for the coming year, it will be much more effective than heretofore, and of more interest to the intelligent sanitarians of this country, and I am sure that it will deserve recognition among all public men who take an interest in such things. A public-spirited man, who resides in Rochester, N. Y., Mr. Lamb, of the Bausch & Lamb Optical Co., has donated $2,000, to be awarded as sanitary prizes by the Association. It is divided into three parts. One of the prizes has special reference to a subject which is now of engrossing interest to us, in anticipation of a coming season of cholera. A prize of $500 is offered for the best essay to be written before April next, on the subject of disinfectants, and such means as we can employ for preventing the communication of disease. It will probably include the subject of quarantine as well, in its scientific aspects. It will treat of quarantine in its true signification, and not according to that which has been foisted upon us for the last five years. The other essays are to be reported to the "Public Health Association" at its meeting in Washington in December, 1885. One paper will treat upon the practical hygiene of schools. The Public Health Association has, from its beginning, had a large proportion of contributions on subjects connected with the schoolroom; and from that alone, might be deduced very much of practical information. The prize essay, for which $500, is offered, is expected to accomplish beneficial results in the highest degree in reference to the subject. We confidently look forward to the session of the Association in Washington, in the expectation of meeting, there and then, new members from St. Louis, and I sincerely trust that some of those members will become identified in some of the leading enterprises which now occupy the attention of the Association. I thank you, gentlemen, for the courtesy shown me.

* * *

Dr. Laidley.—I wish to report the case of a lady, who had suffered great inconvenience during pregnancy, from excessive secretion of amniotic fluid. The swelling involved the entire abdomen, so that she was not able to get about for a month before her confinement. At the time of her confinement the walls of the sac had been distended to such a degree as to induce rupture of them, and a large quantity of water escaped—more than I ever saw before; so much indeed that it ran onto the floor. The child made the usual head-presentation. The labor was of short duration and furnished this specimen, which shows a peculiar development of the brain, a monstrosity known as an acephalous fetus. While such cases are not exceedingly rare, yet they occur in one's practice only occasionally. To a circumstance which occured about the fourth month, the family attribute the cause of this anomaly. At this time, the mother of this child's mother fell down stairs and cut her head badly, and the top of her head became matted with blood. The daughter had to go to bed because of the fright, and continued in her bed probably for six weeks, and it was a serious question, whether a miscarriage would not then result as a consequence of the fright. Whether that circumstance had any influence or not in arresting development, I cannot say. The mother had given birth to a child previously which was perfect in every respect. The health of the woman was ordinarily good, and no other cause than that given could be assigned for this monstrosity. The father is perfectly well and strong, with no history of syphilis or anything of the kind.

* * *

Dr. Meisenbach.—Mr. President, I have a specimen I wish to exhibit. About three weeks ago, through the kindness of Dr. Wessler, I made a post-mortem of this case. It is what I would call a fecal abscess. Dr. Wessler is familiar with the previous history of the case, and if he will be so kind as to relate it to the society, I will confine myself to the post-mortem.

Dr. Wesseler.—This man was apparently in good health until about six months ago. The affection becoming more aggravated he was finally obliged to take to his bed, and I was called in for consultation. An abscess formed nine years ago, which a prominent surgeon, now dead, opened. A large mass of necrosed omentum, or necrosed cellular tissue, was discharged from the abscess which formed in the groin. This abscess continued to discharge for a long time; it finally healed up and the man was able to be about. It afterwards commenced suppurating again, requiring to be reopened, and every time it healed a febrile condition ensued, necessitating the re-opening of the abscess, in order to afford him relief. Two years ago he came to me complaining very much of pain in his back. I then thought I would make an attempt to open the abscess in the lumbar region. The

opening in front, however, being afterwards re-established, discharged freely, and after a while he went to Eureka Springs, where he remained a month or two, and then returned, not improved. In fact, he was worse when he came back than when he went away. This discharge from the old abscess caused such a drain on his system that his lungs became involved and finally he had a hemorrhage, which debilitated him very much. He then had a cough and continued to waste away, until a few weeks ago, when he died. In making the post-mortem we found the pus cavity situated adjacent to the spinal column communicating with the bowel. Considerable fecal matter was discharged through the opening externally. The external opening did not communicate in a direct line with the bowel. Some adipose or cellular tissue was interposed between the pus cavity and the bowel. Its contents were discharged by a circuitous route. The man finally died of marasmus, in consequence of this constant drain on his system.

Dr. Meisenbach.—At the time I first saw the patient in company with Dr. Wesseler he was in such a condition that I did not care to make a minute examination, because it was a foregone conclusion that the patient must soon die and a post-mortem would disclose more than could be ascertained during life. In making the post-mortem I first cut down in the median line and then made a transverse incision through the abdominal muscles; and upon turning back the flap an abscess was disclosed, lying in the right iliac fossa. Its anterior surface was not adherent to the peritoneum in front, but posteriorly we found the gut completely bound down to the peritoneum, so that it was impossible to separate them without tearing and spoiling the specimen; and I cut it out with the muscles of the right iliac fossa. A very large abscess was found, which contained a large amount of stinking, filthy matter. I made a very careful examination and found that the lumen of the gut was not obstructed; there was, however, a flatulency of the small intestine. I passed a probe into the external opening, to the extent of two and a half inches downwards, but found no trace of pus in that situation. It was pretty hard to satisfy the family that the surgeon, who had performed the original operation, had not wounded the bowel. It was on this ground that we obtained the post-mortem. They had firmly believed that the bowel was wounded at the time referred to, notwithstanding statements of Dr. Wesseler and myself to the contrary and that it was impossible for him to have done it. Now the question arises, whether this was originally a lumbar abscess or a peritonitic abscess; my impression is that it was of a peritonitic nature. In such cases it may make an opening through the skin or it may open into the bowel or into the peritoneal cavity and cause rapid death. In this case it seems to have found two openings; one into the bowel and the other backwards into the iliac fossa. In the case of lumbar abscess the route of the pus is somewhat different. In that case the pus is found between the necrosed spinal processes and the iliacus internus. Now it is pretty well understood that pus usually finds its way out through the point of least resistance. In the case of the lumbar abscess the least resistance would be downwards. Generally it descends along the fibrous sheath of the muscles, eventually forming a swelling beneath Poupart's ligament, sometimes extending down the thigh under the fascia. The cause of this abscess is unknown.

Dr. Pollak.—When I came to this city, nearly forty years ago, I found the medical profession divided into two factions, being embittered against each other as much as are the political parties of the present day. The occasion of this state of feeling was a case similar to that presented this evening, and was as follows, viz: Dr. Wm. Beaumont, a retired Army Surgeon, of considerable eminence and famous for his notable experiments with the gastric juice of a living person, was associated in the practice of medicine with one Dr. White. They had under their care an old woman suffering from typhlo-enteritis, which ultimately developed into an abscess in the right inguinal region. The abscess was opened by Dr. Beaumont; a large amount of pus was evacuated and with it some fecal matter. An artificial anus was the result. Whether the intestines were adherent to the walls of the abdomen and in a sphacelous condition or whether he inadvertently opened the bowel was not satisfactorily demonstrated. For some reason Drs. Beaumont and White soon after dissolved partnership. At the instigation of Dr. White (as reported) the patient instituted a suit against Dr. Beaumont for mal-practice, claiming damages for $10,000. Nearly every medical man in the city was summoned to testify in the case; the majority entirely exculpated Dr. Beaumont, though a respectable minority were of a different opinion. The case was ultimately decided in favor of Dr. Beaumont. A newspaper controversy was continued by the friends of the respective parties for several months, and when the daily papers refused longer to publish their communications, it

was perpetuated by means of pamphlets written by Drs. Rayburn and Fourgeau. The latter was subsequently seized with the gold fever, went to California and there died.

Dr. Prewitt.—With the premises as stated it is astonishing that there should have been two camps in the profession. As I interpret the condition, there was a hernia; the hernia had undergone a degree of inflammation that led to an abscess; and almost to a certainty the bowel had become gangrenous. It was certainly Dr. Beaumont's duty to open the abscess if it was an ordinary abscess; and whether the bowel was adherent to its walls it was impossible infallibly to determine. It seems strange that any one in the profession was disposed to censure him for doing that which was clearly his duty to do. There was evidently pus under the connective tissues behind the bowel,which led to the opening into the bowel; indicating that the opening might have been secondary. It seems to me most probable that the abscess communicated with the ilium by ulceration. At all events there was inflammation of the bowels, and it was not certainly a lumbar abscess. In lumbar abscesses the pus generally forces its way down the sheath of the psoas muscle and makes its way out as a cold abscess, with a great degree of inflammatory thickening. I have now under my care a child about four years of age suffering with an abscess in the left iliac fossa. The child had been very healthy until within the last month or two, when it began to complain and have a fever. When first seen some two weeks ago, its leg was flexed so that it could not be brought down; and the first impression connected with the examination and that of the parents also, was, that it had hip-joint disease, or at least some hip-joint trouble. Upon an examination I found that the leg could be rotated in various directions and freely moved so long as I did not attempt to straighten it. There was unnatural fullness in the iliac region and the child seemed to suffer a good deal of pain. At a subsequent visit I gave the child chloroform and found a swelling extending up to a little above the crest of the ilium upon that side. I determined to open it, although I had some doubt as to the ultimate result. I gave the child chloroform, and cut down and made an opening with the probe, drilling through the parts first. I dilated the opening afterwards and evacuated quite a quantity of pus. I could then pass the probe inwards and downwards. I washed the cavity, dressed it and put on an antiseptic; the child is getting along remarkably well, is eating heartily, and the cavity seems to be filling up. I suspected in that case there was bone disease; but the result has satisfied me it was not a case of that kind, the improvement has been too rapid. I do not know to what to attribute the formation of the abscess. An abscess is much more rapidly formed in this region by inflammation. Of the whole number of cases that I have met with or known of, three only have proved fatal. Inflammation occurs and after awhile it generally subsides, occasionally, however, more grave results follow. I remember the case of a person, several years ago, who was sent to the hospital; in that case there was intense inflammation and the walls were broken down. I recollect the case of a young attorney, one of the most promising young men of the city, who was taken with the usual symptoms of peritonitis and swelling in the left iliac region. After several weeks the inflammation subsided very much, and also the swelling, which extended nearly to the ribs. An operation was performed after which he seemed very much better. He wanted to make a journey into the country to see some of his friends. I thought the movement of the cars would not cause him any trouble, and he made the trip without any difficulty. When he arrived at his destination he walked about, more or less, and the symptoms returned, constantly becoming more and more aggravated, till finally he died. The attending physician made a post-mortem and found some inches of the bowels thickened interiorly, so much so that they were almost entirely obstructed. No pus formed in that case, however. The patient was simply worn out by long protracted suffering. A short time before his death, for some reason, the physician concluded there was an accumulation of fecal matter in the bowel. As the result he passed fecal matter,it is true,but he sank very rapidly afterwards and died. It is a matter of surprise, to me at least, that physicians will insist upon using purgatives with the conviction that they will relieve inflammation by removing fecal matter. I am satisfied that they always do harm. This rule holds good in all cases of injury to the bowels. I have now under my care a man who has been healthy until recently he felt a pain in the abdomen. He fell under the care of another practitioner, who gave him an active purgative. He is now in the hospital and likely to die. I am satisfied, that the chances which that man had for life have been destroyed by the use of purgatives.

Dr. McPheeters.—The case of Dr. Beau-

mont was a very celebrated one 40 years ago. It was claimed by one or two physicians, one particularly, who was at the bottom of this suit, that he had mistaken a case of strangulated hernia for an abscess and opened it. The doctor was fully sustained, the courts gave a verdict in his favor, and the great mass of the profession sided with him. The profession afterwards became involved in a squabble about it, and I have a volume of pamphlet-reports published on the subject. I was then editing a medical journal, and I recollect that I was so severe in my denunciations of the man who was at the bottom of the suit that he challenged me. I denounced his conduct in the most unmeasured terms; as an unmitigated piece of professional villainy. All the dissensions of which Dr. Pollak speaks were rather side-issues and squabbles growing out of this case. It was claimed by some of the persons engaged, that Dr. Beaumont's case was one in which fecal matter had escaped and had caused inflammation. I had no connection with the case whatever, but after the case had been decided in the courts I pitched into those who instituted it, claiming that such action was calculated to injure the profession, and that Dr. Beaumont had acted correctly in opening the abscess; that generally all suits for malpractice were instituted by members of the profession through motives of jealousy, and that they ought to be condemned. I thus became involved in it. I am at a loss to determine in the case here presented whether this was a cellular abscess that subsequently opened into the bowel, or whether it was in consequence of some ulceration of the bowel and of fecal matter passing out. Abdominal surgery was not as well understood nine years ago, at the time of the opening of this abscess originally, as it is now. I recently met with a case which convinced me that wounds of the intestines are not so dangerous as has been supposed. The case already reported by Dr. Grindon, of a woman who had been stabbed by her husband, is in point. He and I were called. We found that the gut had been cut in three places. At first we tried to tie it; but finding we could not I suggested that we take it off; and we excised an inch and a half of the intestine. We then approximated the mucous membrane and stitched it up. Almost as much of the intestines were out as were in the abdominal cavity. After great difficulty we returned them. This operation was done in the month of June, in the heat of that month and in a house situated in an alley, and in a room where the patient was subjected to the heat of a stove in addition. I confidently expected the woman would die. She was sent to the hospital, recovered and is now out and well. No antiseptics were used in this case. Besides, she was pregnant, and in a short time after she got to the hospital she aborted.

Dr. Wesseler.—The first case of abscess, of the kind under consideration, I remember of having seen opened, was in a soldier who had been on a debauch. Having been brought in, he was put to bed and there he remained. Three or four days afterward Dr. Calloway, an assistant, opened an abscess that had developed, and as he opened it fecal matter came out in large quantities. The doctor was very much embarrassed; he thought he had killed the man. Fortunately the opening healed and the man got well. At the same time we had another soldier patient, who had an artificial anus and who went about with a tin cup tied to him. He was sent to the hospital after he had been treated by a surgeon in the army. Dr. Hammer was in charge of the hospital and was very quick to condemn bad surgery. This poor soldier in riding a horse had been thrown forward upon the pommel of the saddle so as to injure his abdomen in some way. Dr. Hammer deemed the opening of that abscess bad surgery. This case he did not see until ten or twelve months after its occurrence. He attended the man, and denounced the surgeon, who opened the abscess, as an "ignoramus and unfit to treat human beings." He tried several times to close the artificial anus, but always unsuccessfully. He used the actual cautery, cut the edges and tried to sew it up with wire stitches, but failed after three trials. I think when an abscess of this character has formed it should be opened.

Dr. Pollak.—Cases of abscess of the groin being in order I may mention the case of the late Dr. Kunzler, whom I attended between the years 1854 and 1856. He had suffered for many weeks from an uncontrolable dysentery, eventuating in a phlegmonous inflammation in the right inguinal region; in due course of time fluctuation was unmistakable and the presence of pus undoubted. I invited my friend, the late Dr. Pope, to see him and to open the abscess. This he positively declined to do, adding "noli me tangere." Keep clear of it; an artificial anus lurks behind it." However, the abscess opened spontaneously in a day or two and a large quantity of pus welling up escaped. A few days later, while dressing the abscess, my finger accidentally came in contact with a sharp point of a foreign body at the bottom of it. This I seized with a pair of forceps, and by gentle traction I readily drew it out

It proved to be a long spiculum of a chicken bone. A small quantity of fecal matter immediately followed. From that time the dysentery ceased and he made a good recovery.

The conduct of Dr. Pope demonstrates that an able and bold surgeon will sometimes shrink from performing so very simple an operation as the opening of an abscess.

Dr. McPheeters.—I have retained vivid recollections of the Beaumont case and do not want to have a suit for damages.

Dr. Atwood.—The mistakes of surgeons are very instructive. I think Dr. Prewitt will remember a case, when I remind him that it was the case of Mrs. General S., of this city.

Dr. Prewitt.—I remember the case. It is undoubtedly the duty of the surgeon to open an abscess. Dr. Hammer's strictures upon the surgeon mentioned were totally unjust and uncalled for. The surgeon did his duty. I can understand how a man, by the careless use of a knife, might do damage, but he is not likely to, for the very reason that the abcess lies nearer the surface than the bowel. He would have to pass through the abcess cavity before he could touch the bowel. Dr. Beaumont, in his operation, must have thrust his bistoury through the depths of the pus cavity before he could touch the bowel, almost to a certainty. The condition of the abdomial walls must indicate whether there is an abscess or not. If the surgeon takes precaution,and does not thrust the bistoury recklessly into the abscess, but cuts down until he can get near to the peritoneum, theproper opening can easily be made into the cavity by the drilling process. In that way there can be no injury to any important structure, so long as the cutting is in the direction of the abcess After the abcess is reached the opening can be enlarged simply by dilatation, and all danger of injury is obviated. In regard to the case to which Dr. Atwood alludes I opened abcess and excavated quite a quantity of pus. I was only called to the case at a late period and did not have a very full or clear history of it. The facts were never related to me till after the patient had died. I then ascertained there had been inflammatory swelling on the right side in the lumbar region, extending down in the course of the iliac muscle I was satisfied it contained pus and accordingly made an opening into it. It discharged pretty freely, and for a while she felt very much better, but finally died. On making the post-mortem I found the origin of the abcess was a renal calculus. If I had had a complete history of the case when I was first called Iwould probably have suspected,indeed I did suspect, that that was the condition of things; and I should have then enlarged the opening and hunted for the trouble about the kidneys. If there had been a stone in the pelvis of the kidney I would have removed it. The lady lived a month or two, and felt very much better after the operation, till dysentery set in, from which she died. I say that sometimes a surgeon is justified in opening a bowel. A few days ago I was called in consultation to see a case of strangulated hernia, an old hernia. There were symptoms of obstruction, not very acute,but a decided obstruction. The patient, a lady, was gradually getting worse. The proper thing to do was to operate. I cut down to the bowel and found that adhesions were very extensive in consequence of inflammation the hernia suffered several years previously. The intestine adhered so intimately that there was really no peritoneum left. It was impossible to reduce the hernia, and had it been possible it would have been improper to reduce it, because to do so would have been to put into the abdominal cavity a foreign body. I divided the constricted portion, running my finger up inside of the sac of the intestine, until I was satisfied that all obstruction was relieved. Portions of omentum above and below looked very dark. The bowel itself was very dark and I thought it had suffered some injury. I cut off the omentum and sewed up the opening; the wound united and the woman was very greatly relieved. After awhile symptoms of obstruction began to occur again. I was satisfied from the character of the symptoms that unless something was done the woman would die. I tore open the adherent wall of the opening I had made, and made an opening into the bowel, which was evidently full. It was distended and soft. This I opened and gave vent to a dark quantity of fecal matter, gas, etc., by which she was relieved immensely. I explained to the husband that she probably would have an artificial anus,but that it might close up of itself, when the difficulties in the case were removed, though I did not know exactly what that difficulty was. With the subsidence of the symptoms I thought the obstruction of the passage would be relieved. It remained open for some little time, but finally it closed and the fecal matter now passes through thebowel naturally. I am certain the woman would have died, if I had not made the opening into the bowel. I did it intentionally; it closed spontaneously. There are different causes that may occasion symptoms of obstruction that have been relieved in this way. That is only one cause.

Dr. Hughes.—I arise to make one observation. The duration of these abcesses teach

us what amount of tolerance exists in the pelvic cavity in purulent conditions and in cases of foreign bodies. It throws some light also upon the possibilities of the case of President Garfield. Here is a man spoken of to-night who lived nine years with the process of destruction continually going on in the pelvic cavity. And yet the man lived and did not die of pyemic poison, or septic poison, but died of exhaustion or marasmus. We know not what might have been the possibilities had the surgeons in Garfield's case not been misdirected and misled by those who first came into the case. A case fell under my observation while in charge of the Hickory Street Hospital in this city, in 1862, showing the tolerance by the abdominal cavity, under certain circumstances, of the invasion of foreign bodies. That was the case of a soldier in whom a large conical musket ball penetrated the abdominal parietes just below the umbilicus and passed into the abdominal cavity. He had also received a bayonet thrust which had passed up between the rectus abdominis and the obliquus externus and had not penetrated the abdominal cavity. This soldier recovered completely. All the surgery that I employed in the case was based upon the assumption that the ball had penetrated the abdominal cavity, and to close up the cavity and keep the bowels quiet for nine days. He was fed on beef-tea and cream and made a good recovery and was discharged from the service. A number of cases of abdominal abscesses came under my observation during the war, but that case was the most remarkable of all cases I ever saw, and conspires to show, how often, unless violently injured, the abdomen may escape, or the peritoneum may escape unharmed. It is reasonable to suppose that a certain amount of inflammation must take place. The effect is much more apparent if it is at the invasion of disease. This tolerance is just as true of the abdominal cavity as of the cranial cavity. The system becomes very tolerant of these parts when the invasion is gradual.

Dr. Green.—During the war of France and Germany there were a great many abdominal wounds. One fact was observed: that soldiers who had received wounds which had two openings got well, while those that had but one opening died. It is very plain that those that had two openings had a place for the pus to escape, but where there was only one opening, the pus not being able to escape, pyemic poisoning took place. I think in opening abscesses, there are two dangers: one that on some occasions we may injure some very important parts, the other that in opening an abscess air is admitted to the pus and pyemia takes place. I was called in consultation recently to a child 3 years of age that had an abscess which the attending physician was afraid to open. We put the child under the influence of ether. I carefully dissected the parts down to the abscess, which was not large. Had it been a large abscess no fear or hesitation would have been felt. In this case everything came out right. At present we need not be afraid of pyemia since we are in possession of antiseptics. We must always take care by dissecting the parts not to injure any other parts beneath, so that I think that common sense and experience will teach us that there is more danger in leaving the abscess unopened than by opening it. When we observe that fecal matter is escaping into the peritoneal cavity, open the external wound, clean the peritoneal cavity and bowel and sew the external wound together again, and everything is all right.

Dr. Atwood.—Dr. Green has referred to wounds received in the late war, and that brings to my mind an occurrence while I was surgeon in the Confederate army. A Confederate colonel was wounded at the battle of Lexington, receiving a charge of nine buckshot in the right lumbar region, every one of which penetrated the cavity of the abdomen. There was a great physical shock. I made an exploration of the wounds in the presence of Dr. Cheen and Dr. Conkright. An operation would have been fatal, so I put the patient under opiates and pushed them to the utmost. There ensued such a high degree of fever and delirium that I was induced to resort to the use of the lancet. I bled him to syncope and gave him light doses of oil; in the discharge from his bowels there was no evidence of blood. After some months of careful treatment he finally recovered. That he had nine buck-shot in the cavity of his belly there can be no mistake, yet he recovered. He died afterwards after a lapse of some ten or twelve years in the State of Arkansas, but continued to be a healthy and hearty man till a short time prior to his death. He carried those buck-shot all the time. How nine buckshot got into the peritoneum without wounding a gut I cannot understand, and I know nothing in the annals of surgery to correspond with it.

The Society adjourned.

—Dr. Klein, who with Dr. Gibbes, assisted by M. Lingard, forms the English committee sent to India to study cholera, to show his want of faith in the cholera bacillus, deliberately swallowed a number of them.

CONTRIBUTIONS.

TUMORS OF THE NASO-PHARYNGEAL CAVITIES, WITH A REPORT OF CASES.

BY ALLEN DE VILBRIS, M. D., FORT WAYNE, IND.

The small amount of experience I have had in the treatment of naso-pharyngeal growths, especially those of a fibroid character, has induced me to write the history of the following cases that I have had in charge so that I might thereby call out the ideas of those who have had to deal with similar cases. I never fully appreciated the magnitude and fearful results of this class of tumors, until I became responsible for steps taken in the treatment of a case. As a result I am convinced that this class of cases will be most benefited by that class of doctors who use the rhinoscopic mirror, thereby making the early diagnosis, so that the easier methods of making a complete and thorough ablation can be be used, without resorting to more stringent measures. I need not attempt to magnify the horrible consequences produced by the extension of naso-pharyngeal tumor. Doubtless you have all watched the terrible progress of these tumors when unchecked, extending in every direction, destroying, perhaps, first sense of smell, then vision, next hearing, etc., and eventually putting an end to the existence of their victim through exhaustion as the result of discharge, hemorrhage, anorexia, disphagia, or suffocating him by extending down the pharynx towards the larynx. After suffering all that flesh can endure, it invades the brain and leaves the sufferer, at last, a creature without senses.

Rufus P. Lincoln gives the best tabulated account of the treatment, by different methods, I have seen. He reports seventy-four operations in fifty-eight patients, and like him, I think this class of cases has not received the consideration which they deserve.

The second case which I herewith report, I believe to have been a fibroma, although not coming under notice until after the period in life in which they are usually developed; but it was, undoubtedly, developed at that time and had existed for years.

I am aware of the fact that a diagnosis without a miscroscopical examination is unreliable, but, the firmness to the touch, slowness of growth, absence of pain, until late in the history, led me to believe, that they were fibromatic. The probable cause of the development is, according to McKenzie and others, an irregular evolution during the growing period of a tissue, which, under normal conditions, is exceptionally abundant on the under surface of the base of the skull.

During the age of from fifteen to twenty-five is the time when many of the fibrous tissues of the body are in a very important stage of their development, articular ligaments becoming firm. Plastic activity, being at its highest point, is, no doubt, the reason why these growths are developed.

Case I.—About a year ago, A. B., aged 26 years, and by occupation a farmer, called on me stating he had trouble with his nose and that he had to hawk and blow so much that it was disgusting not only to himself but to all around him. Upon making an examination, I found the nasal cavity and vault of pharynx almost filled with mucopurulent matter. I then took a spray producer (Rumbold's No. 4,) and cleansed the vault thoroughly. On making another examination, with mirror, I had no trouble in seeing a tumor, about the size of a walnut, situated on the basilar process, just back of the posterior opening of right nasal cavity, completely occluding the same. On introducing the finger, I found it hard to the touch. I treated this case with the soothing and cleansing applications of vaseline with spray producers, No. 4, 5 and 2, with much relief to the patient. It did not lesssen the size of the tumor, until after my return from Prof. Bosworth's clinic in New York City, where I had the pleasure of seeing growths operated upon with Jarvis' snare, and was satisfied with the result. I used straight tube of snare, introducing it through the nose, carried the loop over the tumor and gradually tightened for four hours, when the steel wire broke. I felt very much "chagrined," thinking I had put the pressure on too fast by turning the milled nut of the snare, which was one of the largest size, too rapidly. Upon examining the ends of the wire I found it was almost cut through. I directed the patient to return in a few days. This he did, and told me he had spat the tumor out. I made an examination with the rhinoscopic mirror and found it entirely gone, leaving a clean, unhealed surface. I treated him with sprays of vaseline and resorcin for a month, since which time hawking and spitting has entirely ceased, giving him no further trouble. This after-treatment I believe essential to prevent a return of the tumor. I believe that had he been treated early for his catarrhal trouble the tumor might never have developed.

Case II.—Mrs. M. M., of Cedarville, In-

diana, aged 54 years, gives her own history (in a case of fibromata of pharyngeal and post nasal cavities, producing a complete occlusion of the upper air track) as follows:

"At 18 years of age, while enjoying perfect health,I was bitten on the top of the little toe of the right foot by a rattlesnake. The limb commenced to swell and continued until the swelling extended to the body; and remained so for eight years when a lump formed in the right-side (right-hypochondrial-region)about the size of an ordinary tin cup.

At the age of 23, I was attacked with bilious colic, coming on regularly every fourteen days for twelve years. I was then taken with a sick headache once a week for fifteen years. At this period in my life (being in my fiftieth year), menstruation which had been regular since I was fourteen years of age ceased. At this time my nervous headache also ceased and my general health improved. Then I had what the doctors called a sunstroke followed by a mucous and bloody discharge, from the nose with considerable difficulty in breathing. I applied to several physicians for relief they treated the matter lightly giving me the consolation that I had nasal catarrh and that could not be cured."

The above patient called at my office last April. I found her anemic with frog-faced expression, nasal voice, cephalgia, double vision, an abundant amount of muco-purulent discharge,epistaxis, etc., and unable to breathe through the nasal passages. She was, without a doubt, as pitiable an object as one would wish to see.

Upon examination I found the anterior nasal passages so completely filled with a hard tumor that I could not introduce a silver probe between the tumor and walls of nose further back than midway of turbinate bone. In trying to look into post-nasal region I found the vault of the pharynx completely filled,extending downward to inferior margin of soft palate, pressing it forward and downward. Upon further examination by touch I found it attached to the basilar process. As patient was very nervous and much debilitated I only made known to her husband the different operations for relief in these cases, the mortality resulting from same,etc., and suggested electrolysis, thinking that we might not only be able to relieve the pressure upon important organs, but also be able in time to reduce it sufficiently to allow a wire to pass around it, so it could be removed by snare or galvano-cautery and thus save the patient the danger of the more grave operation. My first application was as follows: Three gold-plated needles, about four inches in length, were thoroughly insulated, except that portion which was to be introduced into the tumor, so as to protect surrounding tissue. These were attached to the negative pole of a McIntosh zinc and copper battery. One was introduced through each nasal opening about three-fourths of an inch in depth and the other, a curved needle, behind the soft palate. To the positive pole was attached a large flat sponge electrode, which was moistened and was placed either to the side of the face or over the sternum; then a current from fourteen cells was introduced into the growth and continued for twelve minutes. The patient was instructed to return in ten days to have the operation repeated. On the twentieth day of April she came back looking much better and brighter than before. She said she had had less pain, less tension, less hemorrhage, etc., than before.

The above operations were performed by Dr. Knod and myself every ten days for the next forty days, every operation leaving the patient feeling better than before, but without markedly diminishing the tumor. The patient was to return again in ten days, but failed to do so. We soon learned that she was taken down with a fever and consequently could not come; we learned nothing further from her until August 10, when I was called and went to see her. She related to me that the pressure had become unbearable, hemorrhages, headaches, double vision, etc., had again returned. This time I used a zinc and carbon battery,using ten cells,and instead of using a large sponge electrode,I introduced needles into the tumor, which I believe to be not only less painful, but more beneficial to the patient. I spoke of operating, but the patient and her friends determined not to have any cutting done with the knife, hence I should continue this plan of treatment. But I am without much hope of accomplishing good for my patient, for she is now rapidly failing in every respect.

Case III.—Mrs. D.—aged 58 years, first noticed a tumor in her throat in the spring of '67. She had it removed in June of the same year by cutting through the soft palate. The part removed was about one inch long and half an inch thick. It was first noticed to be growing again about four years ago. She called upon us in the spring of 1884 when we found upon examination the tumor to be antero-posteriorly one and one half an inch,and one inch thick,extending from the vault of the pharynx downward almost to the epiglottis and embracing the left pillars of the fauces and tonsil. Its presence

produced severe neuralgia and pains in the left ear and side of the head and hoarse tone of the voice. So we commenced using electrolysis on June 28, 1884, and made an application every ten days since, with a result of now having a tumor no larger than an ordinary tonsil situated behind the soft palate.

Case IV.—Mrs M. K.——of Fort Wayne, Ind., aged 46 years. Tumor first noticed about seven years ago; has not breathed through her nose for four years Tumor located in left nasal cavity about the size of half a hen's egg cut lengthwise and extending from margin of eye to end of nose and pressing out the tissues of the nose so completely that they seemed no thicker than blotting paper, producing complete occlusion. Commenced using electrolysis July 7, 1884; made an application every ten days. Since the tumor has diminished, to one half its original size.

CORRESPONDENCE.

NEW YORK LETTER.

New York, Oct. 24, 1884.

Editors Review: The unbounded enthusiasm of our ophthalmic surgeons over the use of the Hydro-Chlorate of Cocaine as a local anæsthetic has been limited only by the scarcity and fabulous price of that article in the market, it having sold at the rate of from five to ten thousand dollars per pound.

Not only the oculists, but enterprising men in every department, have been seeking the much valued drug for purposes of investigation.

The hydro-chlorate of cocaine has been known for several weeks to some of our Brooklyn physicians and one or two New York gentlemen; but, while these gentlemen have been cautiously experimenting, other men, evidently more eager of fame, have rushed into print at very short notice.

We are greatly indebted to Dr. W. F. Mittendorf, surgeon in the New York Eye and Ear Infirmary, for some practical demonstrations of the use of this drug. It was only recently that we saw the doctor operate upon an Italian for cataract after several instillations of the cocaine. After the operation, the patient was asked if he had suffered any pain, to which he replied, "No pain at all." There were a number of students and practitioners present, all of whom agreed to the miraculous action of the drug.

Dr. Mittendorf thinks the action of the drug is by paralyzing the terminal nerve filaments. He has used the cocaine with excellent results in operations for strabismus, iridectomy, passage of sounds and corneal incisions.

While, of course, in so short a time it is impossible to judge of the remote effects of this drug and while we realize the usually uncalled for enthusiasm over the advent of a new remedy, we are decidedly of the belief that the hydrochlorate of cocaine will stand in ophthalmology among our most efficient of therapeutic and surgical remedies.

The College of Physicians and Surgeons have just received from Mr. William H. Vanderbilt the munificent gift of half a million dollars, for the purchase of land and the erection of a new college building. The college will move from its old site on Twenty-Third street and Fourth Avenue to Tenth Avenue and Fifty-ninth street. The new building will extend two hundred feet on Tenth Avenue, and three hundred and sixty feet on Fifty-ninth street. Considerable attention will be given to the construction of laboratories for practical and experimental investigations. There is also a large reserve in the college trust fund, which will be also devoted to the new building. It is understood that Mr. Vanderbilt has been induced to give this handsome sum through the influence of his physician, Dr. James McLane also Professor of Obstetrics and Gynæcology in the college. The college will be run in connection with Roosevelt Hospital, which is situated opposite the new site.

Dr. Loomis, after presenting a case of aneurysm, concluded his clinic by a few terse remarks upon the use of alcoholic stimulants. He said:

"A man can take two or three glasses of stimulants through the day as he may feel the inclination and he may continue this habit for perhaps twenty years without any evident harm accruing from it; but, when this man reaches that period of life when the vital powers are on the decline, he suddenly finds himself "old before his time," for he has all these years been laying the foundation of a chronic endoarteriitis. I believe, gentlemen, that fifty per cent of all diseases arise from the use of alcoholic stimulants."

At a subsequent lecture he said: "After all, gentlemen, the more I see of disease, the more I am convinced that, as a rule, a man is young just in proportion as his arteries are healthy, and old as they are diseased."

The doctor also had a very interesting case of cancer of the kidney simulating enlargement of the spleen; although the diagnosis was not positive it was rendered so at the next clinic by autopsy. The patient died of intestinal obstruction, a large cystic cancer of the left kidney being found.

At the New York Female Insane Asylum, on Blackwell's Island, we were amused at a very curious and original invention of Dr. Franklin for

the restraint of suicidal patients. The grounds on either side of the hospital being in close proximity to the water, there have been many attempts at drowning. In order to give these patients exercise, the doctor attaches the wrist of patients to a long rope drawing a gaudily painted chariot in which there is a seat for any inoffensive patient, this latter arrangement serving to divert the attention of the group from their restraint.

Dr. Thomas has resumed his clinical lectures with his usual enthusiasm. He spoke quite at length upon the importance of young men beginning practice upon correct principles, and cited some amusing incidents in illustration. J. W.

LONDON LETTER.

Editors Review:—The medical season has now begun, for not only have we had the usual number of introductory addresses, and the societies resumed their labors, but the General Medical Council have actually been sitting for some days,

As their doings are of great public interest, I may as well say what there is to be said on that score first of all.

They have met at this somewhat unusual period of the year, because at their last session, in the early part of the present year, there was a general understanding that, if the government bill which was then before the Houses of Parliament, should meet with an untimely fate, the Council should meet with as little delay as possible and endeavor to legislate for themselves. The first thing they did was to re-elect their President, Sir Henry Acland, who has already presided over them for ten years, for a further period of office of five years. There was some talk in one of the journals about Prof. Humphry of Cambridge being called to the post, as it was generally supposed that the late President would not care to be re-elected; but I suppose he has allowed his better judgment to be over-ruled. Certainly for some reasons he is by far the most fitted for the office. He has had a greater experience of the working of the Council than any other member of it, having been a member of it since its foundation in 1858; and moreover, being a man who does not lay himself out for private practice at all, he is able to give more time to the duties of his high office than any of his fellow councillors.

The great event of this meeting has come off successfully. I refer to the proposal on the part of the Colleges of Physicians and Surgeons to unite to form one examining body, and give to those who pass the joint examination the double diploma. This is the remains of the original conjoint scheme which was started some years ago, by which all the licensing bodies, both universities and corporations, were to unite to establish one examination through which alone entry should be obtained into the medical profession. This scheme fell through chiefly because the Universities did not care to co-operate with the other bodies, and the partial scheme was set on foot. Last session the Council sanctioned a similar scheme between the Scottish corporations, and it would therefore have been highly inconsistent on their part to have refused their sanction to the English one.

The object, of course, is to secure, if possible, that no man shall become qualified to practice who has not given satisfactory evidence of his competency in medicine and surgery and midwifery. The double qualification of the new board will afford ample evidence in that direction but unfortunately there are some loop-holes. In the first place it is not certain that the College of Physicians can refuse to examine a man who presents himself without any other qualifications, as hitherto their license has been regarded as giving in itself a double qualification to practice. The College of Surgeons obtained a special Act of Parliament a few years ago enabling them to withold their diploma until a man had produced satisfactory evidence of his fitness in medicine, so that on this head they are safe enough. But this is not the only difficulty that may arise. A man may as at present go to the College of Surgeons with the license of the Society of Apothecaries and demand to be examined by them only in surgery before receiving their diploma, and what is worse, he may have already been up for the conjoint examination and passed, say, in surgery but failed in medicine; if at any subsequent time he produces a certificate from some other examining body of having passed in medicine, he will be allowed to receive his surgical diploma, though he has been rejected and not since approved by the body whose standard in medicine must be assumed to be exactly level with that of the College of Surgeons in surgery. Until this conjoint body has the courage to say that it will recognize the examinations of no body but itself, the double qualification will never take quite that place which it really deserves. The examinations as conducted at present by the two corporations separately are as superior as they possibly can be to those of the corporations and licensing bodies in other parts of the United Kingdom, and it is a great injustice to those men that have passed the whole of their examination that they should accept inferior examinations in lieu of portions of their own.

Another matter on which the Council have expressed an opinion is as to the desirability of resuming the visitation of the examinations which they commenced a few years ago.

Dr. Humphry, in moving this resolution, pointed out the great benefits that had been derived from this inspection, benefits which acted in many ways. In the first place the examiners were more on the alert to conduct their examinations well, and the visitors had been able to make useful suggestions to them, and in the second place as the visitors went from one place to another it followed that they had a tendency to equalize the examinations, which was a most desirable object; and, further, it was to be remembered that whatever that was good and new to them the visitors could introduce into their own schools when they got home, a point of considerable importance. Another aspect of the matter was not forgotten by Prof. Humphry, and that was the effect of the visitation on the candidates. Hitherto the visitations have been occasional and announced beforehand, and have been a source of much anxiety to those about to be examined. By making the visitation much more an every day affair he hopes to dispel this awe.

The Council are still sitting and as they propose to go into the whole subject of preliminary education, it may be supposed that their sittings may last several days yet. Seeing that each sitting costs the profession about £150, it is eminently desirable that they should waste as little time as possible. It is of no use to express a hope that they will waste no time at all, because there are some Irishmen on the Council, and they, like all their fellow countrymen, like to hear themselves talk.

I have taken up so much time with these questions of medical politics that I have given myself no opportunity to deal with other subjects.

Suffice it to say that the first of October was observed in the usual way by the medical schools; in some by the time-honored but nevertheless played-out introductory address, in respect of which one of the unfortunates who had to deliver it this year at his hospital said to me on the morning of the day: "the only use of these addresses is that it insures that one man at any rate every year shall have his holiday spoilt by having to prepare one." Several of the leading hospitals have given them up, notably Barts and Guys, the former of which has an annual dinner of past students on the day, and the latter a conversazione.

In my next letter I must endeavor to tell you something of what is going on in the scientific world. Our Societies have begun again, and will by then doubtless be in full swing.

Yours Faithfully,

R. M.

London, Oct. 11, 1884.

—The elastic bandage is, with justice, recommended for sprains.

BOOKS AND PAMPHLETS RECEIVED.

The fifth volume of the Index Catalogue of the Library of the Surgeon General's Office is issued. It contains 15,555 author titles, representing 5,755 volumes and 12,596 pamphlets. It also includes 8,069 subject titles of separate books and pamphlets and 34,127 titles of articles in periodicals. It begins with Flaccus and ends with Hearth.

On Tuberculosis of Bones and Joints; by Roswell Park, A. M., M. D.; Reports from the The Medical News Aug., 20, 1884.

Lectures on the Principles and Practice of Medicine Delivered in Chicago Medical College; By N. S. Davis, A. M. M. D., LL. D. Published by Jansen, McClurg & Co.

Insanity and Cardiac Diseases; by J. G. Kernan M. D. Report from the American Journal of Neurology and Psychiatry, Vol. III, Nov., 1884.

Iodoform in Dental Surgery; By C. F. W. Boedecker, D. D, S., M. D. S. Report from Independent Practitioner, March and April, 1884.

Prevention of Cholera; circular of Wisconsin State Board of Health, July 31, 1884.

Bulletin No. 11 of Massachusetts State Agricultural Experiment Station, Sept. 1884. Notes on feeding experiments with corn ensilage (continued).

Contributions of Physicians to English and American Literature. By Robert C. Kenner, M. D.

ITEMS.

—In No. 16, of the current volume of the Review, on page 318, in line 21, of the second column, the words "if not an antiseptic" were omitted between "what" and "is." That such is the case is obvious from the drift of the proceedings as well as from the medical prestige of the speaker. In this connection we desire to urge the members of the St. Louis Medical Society to take advantage of the opportunity they have of revising and correcting their remarks as taken by the stenographer. The copy is handed to us after revision by the Committee on Publication and due announcement is made at the Society of time and place where members can look over their expressions

—The clerk of the Health Commissioner and Board of Health of St. Louis desires the practitioners of medicine in the city, who have registered with the Missouri State Board of Health and have received their certificates, to bear in mind that the State law demands that the certificates be recorded at his office.

—Dr. Edward Borck, of St. Louis, sends us a prospectus of a "Private Course of Surgical Lectures," that he contemplates. Each course is to last about one month, there being twelve didactic lectures and twelve clinical demonstrations. Gentlemen desirous of taking advantage of this opportunity are requested to signify their intention, so that proper arrangements can be made.

—Chloral hydrate is said by Dr. Roberts Bartholomew to be the incomparable remedy for cholera. In many cases of cholera infantum it certainly is of great service.

—Dr. Osler of McGill University, Montreal, has received a unanimous invitation to the chair of Pathology in the University of Pennsylvania.

—A dentist at Triangle, New York, once received an order for a block of teeth, as follows: "My mouth is 3 inches acrost, ⅝ inches through the jaw; sum humocky on the edge; shaped like a horse-shoe, toe forward. If you want me to be more particklar I shel hav to cum thar. Yours truly, ——."

—M. Charcot has been elected a member of the French Academy of Sciences in the place of the late Baron Cloquet.

—The Academy of Sciences, Art and Literature of Caen offers the following prizes for competition: 1,000 francs for "The Preservation of Anatomical Subjects and Specimens." Another of 2,000 francs, "The Anatomy, Histology and Homology of the Different Parts of the Nervous System of Fishes."

—Danger of morphia in mitral regurgitation and dilatation of the heart.—Dr. B. Edson relates a case in the Medical Record, of the danger of administering morphia in dilatation of the heart. He had refused to give morphia to a patient under his care suffering from the above affection, but a homeopathic practitioner invited yielded to the patient's wish and death resulted on his attempt to rise the next morning.

—The Washington International Medical Congress.—The Committee on Organization has been constituted as follows: Drs. Austin Flint, of New York; I. Minis Hayes, of Philadelphia; Lewis A. Sayre, of New York; Christopher Johnston, of Baltimore; George J. Engelmann, of St. Louis; J. S. Brown, U. S. Navy; and J. S. Billings, U. S. Army.

—Normal Increase of weight ni advanced Childhood.—Observations were made upon girls, from four to fifteen years of age, inmates of the Jaegerspris Asylum. The children were weighed in April and October of each year, from 1874 to 1883. It was found that the normal weight of girls at this age increases in regular progression from thirty-two and a half to ninety-eight and a half pounds (16.25 to 49.25 kilos). Up to the end of the fourteenth year the annual increase is eleven per cent of the weight of the previous year, but after this time the rate of increase falls off somewhat. The increase during six warmer months is greater than in the six colder months, in the proportion of four to three.

—A point in Diagnosis of Strangulated Hernia. Dr. Englisch, of Vienna, on examining the urine of patients under treatment for strangulated hernia, has ascertained that it always presents albumen in proportion to the duration of the strangulation. If surgical means be not adopted, the albuminuria continues until the death of the patient. The quantity of albumen is not affected either by the date of the hernia, the size of the sac, the frequency of the anterior strangulations, nor by a febrile condition. When there is simple protrusion of the omentum, albumen is absent. Prof. Nothnagel attributes this albuminuria to diminished intravascular pressure resulting from the presence of a strangulated hernia.

DEATHS IN ST. LOUIS FOR THE WEEK ENDING OCTOBER 25, 1884.

Small-pox	
Measles	
Scarlatina	4
Diphtheria	7
Membranous croup	5
Whooping cough	
Typhoid fever	8
Cerebro-spinal fever	
Remittent, Intermittent, Typho-malarial, congestive and simple continued fevers	7
Puerperal fever	1
Diarrhœl Diseases.	
Under 5 years	11
Other ages	5
Erysipelas	
Pyæmia and Septicæmia.	
Syphilis	1
Inanition, want of breast milk, etc	3
Alcoholism	1
Other zymotic diseases	
Rheumatism and gout	
Cancer and malignant tumor	1
Phthisis and tuberculosis Pulmon	15
Marasmus—Tabes mesenterica and scrofula	7
Hydrocephalus, tubercular meningitis, etc	1
Other constitutional diseases	3
Bronchitis	2
Pneumonia	6
Other diseases respiratory organs	3
Diseases of the circulatory system	11
Meningitis and encephalitis	1
Convulsions and trismus	8
Heat stroke	
Apoplexy	3
Other diseases of the brain and nervous system	4
Cirrhosis of liver and hepatitis	3
Enteritis, gastro-enteritis, peritonitis and gastritis	6
Bright's disease and nephritis	2
Other diseases urinary organs	1
Diseases generative organs	
Diseases of the locomotory organs	1
Diseases of the integument	1
Accidents of pregnancy and childbirth	1
Congenital debility, malformation, etc	4
Senility	7
Surgical operations	
Deaths by suicide	1
Deaths by homicide	1
Deaths by accident	6
Execution by warrant of law	
Unknown	
Total Deaths from all Causes	152
Total zymotic Diseases	53
Total Consitutional Diseases	27
Total Local Diseases	52
Total Developmental Diseases	12
Deaths by Violence	8
Unknown	

Gib. W. Carson, M. D.,
Clerk of Health Commissioner and Board of Health.

THE WEEKLY MEDICAL REVIEW.

VOL. X. No. 19. CHICAGO AND ST. LOUIS, NOVEMBER 8, 1884. TERMS: $3 A YEAR.

DEATH OF A PHYSICIAN FROM CHLOROFORM.—Resolutions of respect forwarded by the Ogle County Medical Association, Illinois, relative to the decease of a member will be found in another part of the REVIEW. At the same time we avail ourselves of the opportunity of calling attention to the dangers of the personal quiet inhalation of chloroform. It was apparently in this way that Dr. C. M. Whiting, to whom the resolutions referred to above have reference, died. Some five or six years ago a young physician who had just graduated and was living in the suburbs of Chicago took his departure in a similar way, and a number of other similar cases could be found in the current journal literature. Both of the two in question were accustomed to inhale chloroform for slight ailments, at any rate such is the statement of the local press relative to the late Dr. Whiting, and similar statements were made relative to the other case referred to at the time of the event. Dr. W—. was found in his office on the couch with his hands and handkerchief to his face and a bottle of chloroform corked on the table. The verdict of the jury, however, correctly enough, says that he came to his death from some cause unknown to them, the jury.

Death from the administration of anesthetics is usually associated with so much anxiety and sadness that we aim on all occasions to call attention to what seems to be the most dangerous of the necessary anesthetics, chloroform. As to the habit of personal inhalations, if the facts do not convince, no amount of admonition will.

PUBLISHING COMMITTEES OF MEDICAL ASSOCIATIONS.—Publishing committees have generally a thankless duty to perform, and nothing less than a good broad comprehension of their responsibility, not merely to the author of a given paper but also to the society as a whole, will enable them to discharge that duty with satisfaction. They have a right to expect from every author a reasonably legible and accurately written manuscript, and are under obligations to refrain from printing what is derogatory to the general status of the Society in question, even if it should have been presented to the Society. We can readily understand that for fear of being considered partial certain articles are passed into the printers' hands that the better judgment of the committee would have consigned to the waste-basket, but in so doing they ignore the wrong resulting to those who have discharged the duties they have undertaken with credit, by associating, in the same volume, the mere exhibition of the most disreputable ignorance and creditable work. We are led to make the above remarks by the appearance of the Transactions of the Texas State Medical Association, sixteenth annual session. After publishing three pages and a half of the most disreputable report we ever remember seeing in type under the very definite heading "Some uncommon cases in my practice," the Publishing Committee confess that the greater part of the contribution was omitted because they "could not make any sense or connection to several pages." The Committee are certainly to be congratulated if they were able to discover any sense or value in the part which they selected for publication, and the other contributors are to be commiserated for their forced association.

INTERNATIONAL COLLECTIVE INVESTIGATION OF DISEASE.—We have previously called attention to the fact that the International

Congress entertained the question of the Collective Investigation of Disease, and it is with pleasure that we herewith append the letter of the Secretary General, which is evidently the result of the deliberation of the Committee appointed by the International Congress:

"The main objects which the Committee seeks to attain through the Collective Investigation of Disease are to widen the basis of Medical Science, to gather and store the mass of information that at present goes to waste, to verify or correct existing opinions, to discover laws where now only irregularity is perceived, to amplify our knowledge of rare affections, and to ascertain such points as the geographical distribution of diseases and their modifications in different districts. It will be its endeavor to place clearly before the whole profession the limits and defects of existing knowledge, as well as to stimulate observation, and to give it a definite direction. It will be a not unimportant incidental result of its work should it tend, as is hoped, to the better training of the members of the profession in habits of scientific and practical observation, and to systematic methods of recording the facts which they observe.

The age in which we live has seen enormous advances in the sciences on which the fabric of Medicine rests, such as Chemistry and other branches of Physics, Physiology, and Pathology. Each of these has taken giant strides. It must be admitted, however, that purely medical knowledge has scarcely made proportionate progress. It cannot be expected that it should do so, as it deals with the aberrations of the most complex of organisms, is of all science the most difficult, and demands the greatest patience and the largest accumulation of data.

Hitherto the advancement of Medical science has been brought about mainly by individual effort. The value of such work in the past we in no way underrate, nor do we desire to lessen the amount of it in the future; but in Medical Science there is much that defies interpretation from individual experience, and many problems so far reaching in an ever-widening field, with elements so manifold, that no single man, however gifted and long-lived, can hope to bring the whole within his range. The need, therefore, in Medicine, of that combination and concentration of individual work which is adopted in many other branches of science and in commerce, and to which increasing facilities of intercommunication have given so much impulse and so much strength, cannot be questioned. Indeed, it may be said that, resting on individual research alone, Medical knowledge can be advanced but slowly and with difficulty. Future progress to any great extent must be the work, not of units acting disconnectedly, but of the collected force of many acting as one. For many to act as one, organization is needed; that organization it is the purpose of our Committee to supply.

Disease is many-sided, and we wish to include in our organization those who see it from every side. All, therefore, whether hospital physicians, family and school attendants, specialists, medical officers of the Army and Navy, and of workhouses and asylums, will be asked to contribute their quota of observation to the common fund.

In England and in Germany organizations for this purpose already exist, through which good work has been accomplished, and a volume entitled the Collective Investigation Record, containining tabulated returns, with reports upon them and other matter, is published annually by the British Medical Association. France and Austria are alive to the importance of the new method. In Scandinavia and in the United States the foundations of associations have been laid. Denmark, Russia and Switzerland are setting their hands to the task. To unite these several associations by an international organization for the study of various problems, and to induce the formation of similar combinations elsewhere is felt to be a work peculiarly befitting an International Congress. Our Committee is enjoined by the Congress at Copenhagen to endeavor to carry out this work, and in compliance with that injunction it invites the co-operation of all who have at

heart the promotion of Medical science and practice.

The following is the proposed method: A subject having been selected, a person or persons of acknowledged authority will be asked to write a memorandum in the form of a short essay, upon it. The memorandum will succinctly give the present state of our knowledge. It will also point out the directions in which further research may best be made, and with this view will suggest a few simple and and definite questions upon the subject selected. The questions will relate to matters of fact, to be elicited by observation of cases, rather than to matters of opinion.

The contemplated organization will, it is hoped, in time enable the Committee to ask and collect answers to these questions from the profession at large wherever medicine is studied or practiced. It will be a further duty to examine, arrange, tabulate, and deduce results from the mass of observations thus collected, due credit being given to each contributor for the information he has furnished, and Reports on the results of the several investigations will be laid before the International Congress at its next meeting at Washington. ISAMBARD OWEN,

Secretary-General.

5 Hertford Street, Mayfair, London.

FRENCH REPORT ON CHOLERA.—Koch's theory of the cause of cholera is certainly not yet conceded. Besides the drinking of the water known to contain the micro-organism, as previously reported by some investigators, we find the French observers claiming to produce the choleraic manifestations in rabbits by an intra-venous injection of blood from a patient in the algid state. The French claim that the characteristic lesion of cholera is in the blood, and that the comma-bacillus is a mere co-incidence. Many things remain to be explained if we accept this theory; meanwhile we cannot do better than quote for our readers the report of the commission, Messrs. Sicard, Taxier, Loucel, Livon and Chareyre.: "1. The cholera is transmissible to the rabbit, as demonstrated by injection into the veins of the blood of a cholera-patient at the algid period. The rabbit died in twenty-four hours, with lesions entirely like those of cholera. 2. By cultivation, this blood after a few hours loses its infectious properties. 3. Injections of choleraic blood in the period of reaction, or a very advanced algid period, produce no effect. 4. The perspiration of a cholera-patient, injected into the veins, does not transmit cholera. 5. The stomachic or intestinal dejections, or the gastro-intestinal contents (this last full of comma-bacilli), may, after filtration, be injected with impunity into the cellular tissue of the peritoneum, the windpipe, the intestines, the rectum, and even into the blood. 6. Comma-bacilli taken from the intestines of a cholera-patient may be introduced into the intestines of a rabbit, and multiply there for more than eleven days, without producing any choleraic symptoms, and without necropsy revealing the anatomo-pathological lesions characteristic of cholera. 7. There is thus every proof of the non-specificity of the comma-bacillus. We experimented on bacilli taken from the intestine, and with dejections kept from two to twelve days, the results being always negative. Everything also proves that this bacillus does not produce in the intestine toxical ptomaines which would be the cause of poisoning—namely, the lesion of the blood. The inference from more than fifty of these experiments is the non-contagiousness of cholera, which we maintained from the very opening of the discussions. 8. The minute examination made by us of the heart and large venous vessels of cholera-patients enables us to affirm that there is no phlebo-carditis in cholera, as alleged by Morgagni and still maintained by many enlightened physicians. 9. Bulbar and medullary lesions, or those of the solar plexus, appear to us to be all secondary lesions. 10. In our opinion, the initial lesion of cholera takes place in the blood. 11. It essentially consists in the softening of the haemoglobin, which makes some corpuscles lose first their clear

shape, the fixity of their form, and the faculty of being indented. Those corpuscles adhere together, lengthen out, stick together, and, in very rapid cases especially, some are seen which are quite abnormal, while others appear quite healthy. 12. The entire loss of elasticity of the corpuscle (which is shown by the preservation of the elliptic form when it has been stretched out) is, in our view, a certain sign of the patient's death. To stretch out a corpuscle, it is merely needful to alter the inclination of a plate on which a sanguineous current has been established in the field of the microscope. The fluid column stops at one point, whereas the rest continues to flow. An elongation of the intermediary corpuscles results, and then a rupture of the column. In the gap thus formed are some scattered corpuscles. If these revert to their primitive form the patient may recover. If they keep the elliptic form, we have seen death follow in every case, even if the patient's symptoms were not serious at the time of the examination of the blood. At the outset, and in the rapid cases, which give the clearest results, corpuscles remaining healthy are seen alongside the unhealthy ones, and assume the shape well known in heaps of money, or maintain their liberty. When currents are created in the field of observation, the columns of healthy, or less unhealthy, corpuscles remain stationary, or nearly so; whereas unhealthy corpuscles flow between the columns or the stationary masses like fluid lava. This we believe to be the characteristic lesion of cholera. By hourly examination of the blood of cholera-patients the progress of the malady can be mathematically followed. First, some corpuscles are unhealthy, then one-third, then half, then two-thirds, and lastly death supervenes. A very important fact in our view is that all the corpuscles are not simultaneously affected. We debar ourselves from substituting a fresh hypothesis for all those we have overthrown. We confine ourselves to saying that we know better than our predecessors what the cholera is not, but we do not know what it is."

Placenta Previa Without Hemorrhage. Dr. Paget Thurstain in the British Medical Journal reports a case of labor at seven months. He says:

"There had been sharp hemorrhage just before my arrival, and a little at times, for two or three days previously. The patient was pale and anemic. She had borne two children, and, after an interval of nine years, had had a third, fourteen months ago. The former labors had been normal. The placenta was presenting; it lay almost on the perineum. There were strong pains; the waters were unbroken; a little blood was oozing. Pulse 75, weak, but regular. The head could be felt in the left iliac region, and the back was apparently anterior. Two pains occurred after my arrival; and the waters broke with such a gush as to soak the carpet a yard away. Three or four inches of cord protruded from the vagina; no pulsation was felt. Knee presentation was now made out. For half an hour after the waters broke, there were no pains or hemorrhage. I kept the palm of my left hand firmly over the fundus, and gently pressed it in the direction of the axis. The patient was very prone to fainting attacks, and seemed feeble, so I gave her two teaspoonfuls of gin in water. As this did not bring on pains, I used gentle traction on the cord, which at once brought on a pain. I kept one hand on the fnndus until the child was delivered. At the last moment the placenta, which had actually protruded from the vagina, receded, and the left leg presented. This was followed by the breech, the right leg being doubled up over the abdomen. The pelvis was of full dimensions in every direction, and the child, of course, small. The pains were not strong, and were far between; but as the child was undoubtedly dead, and there was no hemorrhage, I did not interfere further. There was no further difficulty. The hemorrhage externally, from the time of my arrival, throughout, was quite insignificant, and there was no indications of external bleeding. The day after the labor there were one or two clots passed, but no more than are frequently passed after

a perfectly normal labor. There were no bad post-partum symptoms, and the convalescence has been quite as rapid as usual.

In this case, nature had apparently effected the separation of the placenta, without any alarming hemorrhage, before my arrival. The subsequent course of the case presented no difficulties justifying interference, so that this may be classed as a case in which a placental presentation terminated favorably (to the mother) by natural processes."

Clinical Reflections Relative to the Operation for the Excision of the Kidney.—At the close of an interesting lecture on the excision of the left kidney, where the operation as such was successsul, but death followed from cancerous development, Dr. Davy, surgeon to the Westminster Hospital, says:

"Having laid before you the clinical facts, let me say a few words on the method pursued for endeavoring to arrive at a correct diagnosis. In addition to his physical signs, there was the history of unilateral lumbar distress for three years, and the previous transit of a calculus per urethram in 1883. Careful examinations per rectum digitally gave imperfect information; but, in any such future case, I should again avail myself of a combined examination; namely, manipulating a full-sized sound in the bladder,and the forefinger in the rectum. I find that on the dead body the ureteric ourfalls can be faithfully subjected to touch by such operative treatment; but in F.'s case this means of diagnosis failed by reason of the new growth surrounding the stone. The utility of ureteric compression per rectum was demonstrated in this case; and I venture to draw surgical attention to the additional value of the lever, as one aid to diagnosis; by which I mean, had the right kidney line not acted when the left ureter was blocked, strong evidence would be afforded of the worthlessness of the right kidney; and therefore any operative measures on the left would have been negatived. This point has also been noted by Dr. Robert F. Weir, and published in the Medical Record, New York, April 7, 1883, but such an application of the rectal lever had been demonstrated by myself in 1874.

It is also possible, of course, to compress either ureter against the true pelvic wall on its own side, per rectum; but not so reliably as by the use of the lever applied at the point where the ureter is passing over the common iliac artery on the psoas magnus.

As to the operations performed on this patient. In the first, an exploratory one, the peritoneal sac was opened; and this was really more accidental than intentional, my object being to tap the cyst at a point where doubts might have been cleared up with reference to the intestine. The information gained would have been equally the same, had it not been opened in this case.

With regard to the second operation, I must give preference to the posterior lumbar wound; as ample space can be had in that quarter for the removal of any kidney, and cleanliness and free drainage are naturally promoted by the dependent wound.

Both wounds (first and second operations) healed perfectly well, without any dressings whatever, excepting such as were necessary for keeping the patient dry, clean, and comfortable. I am inclined to give the calculus impacted at the left ureteric outfall the credit of being the starting point of the encephaloid cancer, by reason of its definite localization; and to explain the complete freedom from cancerous infiltration above the diaphragm by the anatomical facts, that the lumbar glands receive the lymphatics from the ureter, and the liver those from the rectum through the portal circulation. Be this as it may, it is worthy of note that the lumbar glands and liver seemed to act as the collecting filters."

Since making the above selections we note in the Boston Medical and Surgical Journal another case of operation for disease of the kidney. As far as one can judge from the reports the latter was by far the more favorable case for operation. As far as the general description of the operation is concerned the

chief difference was that in Boston all antiseptic precautions were taken, except the spray—the room having been disinfected the previous day with sulphur; whereas in the case in London no antiseptic precautions were taken excepting such as were necessary to keep the patient dry, clean and comfortable, and yet both wounds healed well by first intention. In the case, however, where all antiseptic precautions were taken, the result in general terms was pyemia and death in the tenth week from the results of the operation.

Position in the After-Treatment of Lithotomy.—Alex Faulkner, of H. M. Indian Medical Service, says:

"I should like to bring to notice a point in the treatment of cases subsequent to the opertion of lateral lithotomy, which I have practised for some time, namely, the advisability of continually keeping the patient lying on his abdomen after the operation. Although this mere position may seem at first an apparently trivial detail,yet I consider it is of importance in expediting the healing process of the perineal wound, as by its means the urine has a tendency to pass more through its natural course into the urethra when expelled from the bladder, instead of continually permeating through, and, consequently, irritating the open perineal wound."

Scientific Aberration—Dr.Klein, of London,to show his disregard for and lack of faith in Koch's comma-bacillus, has made a meal on them recently. It is really strange that men of high scientific standing should indulge in such puerile business. The Berliner Klinische Wochenschrift says: "We had looked for something better from Dr. Klein and must confess that this so-called auto-experiment gives us no great idea of the discernment and powers of criticism of the above named gentleman."

And the British Medical Journal, fully appreciating how ridiculous the affair is, states that everybody in London laughs at the experiments.

Such experiments prove little or nothing. If the experimentalist suffers nothing it is more reasonable to suppose that the infective matter did not find a proper soil for development; that the material taken does not possess specific qualities is not to be directly inferred.

Death from Trichinosis.—A death from trichinosis occurred at the St. Louis Female Hospital this week. The patient was a child that recently arrived from Germany. The mother died a few weeks ago probably from the same cause indirectly; another child of the same family is dangerously ill.

Chloroform and Croton Oil For Tapeworm.—Dr. Bernard Persh, according to the Medical and Surgical Reporter, has most satisfactory results in cases of tape-worm with chloroform and croton oil. He suspends one drop of croton oil and a drachm of chloroform in one ounce of glycerine; this to constitute one dose. The medicine is best given in the morning before breakfast, and no preparatory treatment is required, except half an ounce of Rochelle salt on the evening preceding the removal. The preliminary laxative is not necessary to effect a cure, and it was omitted in several cases; but its administration facilitates the examintion of the evacuations, prevents breaking up the worm by hard faeces, and allows the parasite to pass more quickly through the intestines after becoming detached. The medicine is not unpleasant to take, and acts quickly. If any intestinal irritation is caused it may be controlled with bismuth and opium after the expulsion of the worm.

How to AdministerSantonine. —Kuechenmeister has shown that lumbrici lived in a mixture of albumen, santonine and water, but they succumbed in a few minutes in an oily mixture of santonine. Experience has proven the necessity of direct contact. Santonine powder or troches are not a good way of administration,for the santonine is then mostly absorbed in the stomach. The only rational preparation is an oily mixture which is slowly absorbed in the intestines. In any other mode it has a toxic effect with many, but given wih ol. ricini is no disagaeeable, and very efficient.—*Revue de Science Medicale*,

CONTRIBUTIONS.

HYGIENE OF THE NERVOUS SYSTEM AND MIND.

PART I.—THE RELATION OF THE NERVOUS SYSTEM TO CHOLERA AND ITS PROPHYLAXIS AND NEUROTHERAPY.

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Read before St. Louis Med. Society, Sept., 1884.

A century ago Callen made the observation that from all that he could discern of the movements of the human body in diseases they were all so intimately associated with and dependent upon the nervous system that they might in a manner be called nervous ("Quantum ego quidem video motus morbosi fere omnes a motibus in systemate nervorum ita pendent, ut morbi fere omnis quodam-modo Nervosi dici queant" Cul's Nos. b. II. p. 181 Edin. Ed. 1780.)

The proposition has been sustained by every step taken in the forward march of medicine from that day to this, for,notwithstanding the significant and valuable discoveries of spores, fungi, microbes, bacilli and other microscopic revelations and their relation to morbid states of the blood, it is not until the nervous system is morbidly touched and yields in disordered action (psychic, trophic, motor, vasomotor or other parts of the sympathetic, especially in its ganglia), that the characteristic phenomena of distinctive disease appear. The intangible virus of zymotic fever, which "touches the life of all the blood corrruptibly" is first revealed in the *malaise*, cephalagia, jactitation, insomnia or somnolencia and delirium of the higher psychical centers of the cerebrum. And so other fevers after the symptomatic revelations of a disturbed and struggling nervous system notifiy the physician that his aid is needed, the microscope, if he has time then to use it, may reveal the proximate cause of the morbid commotion to be, or have been micrococci or filiaria, but until the assaulted nervous system succumbs we know nothing of the mischief brewing or the danger threatened, and the specific microbe sustains the same relation to the resultant phenomena that the draught of air or sudden exposure to change of temperature does to the vaso-motor paralysis and resultant mucous and vascular congested phenomena of a common cold or its graver results in localized inflammation. Bacilli are not disease, but only potent causes, just as stone in the bladder and sanguineous, fibrinous or serous exudates are consequences of morbid systemic action.

Malaria, of which we know so much and yet so little, reveals itself in chills and fever; both nervous phenomena, and in congestions and delirium and coma, which but for the yielding of the vaso-motor nervous system and the psycho-motor area of the brain could not occur and when the final ending of all physical function is foretold in the graver blood impoisonments of yellow and other fevers, the last expiring movement is in the nervous system, in those "idle comments of the brain which foretell the ending of mortality." This is true of the rigor mortis of sudden death and the last comatose symptom of cholera collapse. We have seen, in the progress of medical observation and research, many obscure diseases, as pathology has grown clearer, assigned to their proper place in the nervous system, from exophthalmic goitre to eczema and from cholera to dyspepsia, notwithstanding that in connection with the contagion and spread of cholera Asiatica a contagium, microbe, thanks to the labors and noble heroism of Koch, is proven in the comma bacillus as the essential causative or resultant excitant and propagative factor. Yet cholera is essentially a disease of the nervous system in its symptomatic display especially beyond the bowels.

The phenomena of the dread diseases which demand our attention are essentially nervous; the paralyzed vaso-motor control which admits of the fatal aqueous exudations which permit the exsanguined and shrunken features, and the fatal exhaustion, the sudden paralysis of appropriating power of the centres presiding over nutrition, the complete exhaustion of the trophic nervous system which makes the administration of medicine in certain fatally predestined cases look like a solemn mockery, the pinched contracted visage and the painful and finally painless cramps, and exhausted power of inhibition, which sooner or later appears, all tell us how essentially nervous are the phenomena of this pestilence, when once its hold is secure upon its victim, and suggest the importance of a well sustained, vigorous tranquil and resisting nervous system in warding off its destructive attacks.

Though this pestilence no longer walketh in darkness,and though it wasteth less at noonday than in the distant past its sad work still goes on under the glare of the brightest light of science, but there are hy-

gienic methods which to-day diminish susceptibility to contagion, by imparting public confidence, reducing mental demoralization and panic, and maintaining the general health of communities up to a higher standard. Though we by sight of science have probably found the cholera bacillus (the bacillus both of cholera Asiatica and of cholera nostras perhaps) we can not yet entirely by power of science keep this potent living infinitesimal from evil, yet we can resist and circumvent its power, not alone by clean streets and dwelling places, sunlight into the dark places and disinfection and pure air where dirt and filth abound, but by clean and strong bodies and by well sustained, well rested, invigorated and tranquilized nervous systems, built up to the power of resistance to the very maximum of physiological strength, not stimulated spasmodically by sudden fright after the pestilence has come but trained up in advance by adequate but temperate nourishment. By ample rest of brain for the fullest possible recuperation each night of the days wasted power. By making cities profoundly quiet in time of the pestilence interdicting the needless noises both day and night, which keep the cells of the brain and nervous system agitated and restless, when they might be restful and in condition of repair for more work and by a trained abeyance of the passions, the abandonment of exhaustive vices which undermine the nervous system and fit it to succumb to light assaults of disease.

To this end, in anticipation of an invasion of cholera here next year, the prudent will finish up, before the epidemic comes, present business enterprizes which promise unusual mental strain, worry or other tax on their powers, and permit a little of that reserve nerve force to accumulate, which, hitherto, like an improvident man with his bank account, they have been in the habit of expending as fast as it has accrued. Cholera is not in strictest sense a filth disease, at least in this country, though filth by contaminating the atmosphere, impoverishing the blood and impairing the nervous system, furnishes favorable conditions for its taking hold of the organism. On the contrary putrefaction bacteria, as Koch asserts, destroy the comma bacilli or assist their multiplication. Alcoholic stimulation, at least to dissipation so called, must be abandoned the physiological tone of the vaso-motor system maintained and the perfect stability of the higher cerebral centres—the psycho-motor and psychical—must be permitted to become re-established up to the point of their highest resisting power. Habitual alcoholization is a paralysant of the vaso-motor nervous system as well as of the cortex of the brain, beyond all doubt, notwithstanding it acts as a temporary excitant, and momentarily stimulates latent power into increased activity. The frequent habitual use of stimulants like alcohol excites the heart,s activity, exhausts the tonicity of the brain by causing it to expend its latent reserve power daily; and leaves its vessels dilated and its substance oppressed; the cerebra-spinal fluid crowded out of the perivascular spaces and the brain is prepared then for apoplexia and coma. Tobacco, too, is a vaso-motor paralysant and motor depressant and weakener of vital power in those in whom tolerance has not been well established, and had better be used with moderation or abstained from.

To the end of proper prophylaxis in regard to the nervous system, the hours of rest and labor should be regulated by municipal authority, that over-taxed human beings, especially among the poor, should not be made ready subjects for attack and almost certain victims to the fatality of cholera. Night work should be discountenanced so far as practicable and prolonged hours without adequate rest following should, when practicable, be prohibited.

The schools should be looked after; tasks should be lightened and invigorating relaxation lengthened both for teacher and pupil, and more daylight and pure air let into the school room. Fewer hours of study should be required; overcrowded rooms should not be tolerated.

Those who hold people to service should see that they do not engage in dissipating and exhausting pleasures during hours which should be devoted to sleep, and should enjoin staying at home and resting instead of wasting their nervous powers by frolicking till midnight, retiring to be awakened unrefreshed for the morning's work. Cholera in the kitchen imperils the health of the parlor and the health of rooms upstairs is concerned in the welfare of the occupants of the laundry. Saloons should be closed at an early night season in times of epidemic, and men before they get dead-drunk in them should be taken home and put to bed by the police.

All causes of public or indirect depression of the nervous system should, in times of this epidemic be avoided; long and exhaustive funeral services, especially in crowded and illy ventilated rooms, tiresome and ostentatious funeral processions, cars and rooms vitiated by tobacco smoke and depressing human exhalations.

Men may deny that nature's God commandded the Sabbath day for rest, but physicians know that imperious Nature demands it, if longevity of human life would be reached. The law of Moses commanding a respite from customary labor one day in seven was founded in physiological wisdom, if not in inspiration, and for this reason physicians should demand that the sounds of busy industry should cease one day in seven, that the ceaseless bustle and din of business which so tries the nervous system during the week shall cease for one day of recuperative rest to brain and mind; that all needless noises that harshly grate upon the ear and rob tired nature of its just repose, should be suppressed, in order that enough of sleep, and rest, "sore labor's bath," "tired nature's second course," may come to the people of the heart of the city to "knit up the week's ravelled sleeve of care." There is too much unnecessary noise even on ordinary business days and too much noise allowed in the night and altogether too much on Sunday for the highest health of the people of our great American cities.

The wealthy suburban resident does not suffer so much from this cause of nerve disturbance as the working man and subordinate business man who lives down town, but the needless wear and tear of brain and nerve from unnecessary and preventible city noises, if prevented, would add very materially to the healthful endurance of the people in time of cholera and at all times prolonging life and averting insanity and premature failures of the nervous system in other directions. To be well repaired, man, like any other machine, must rest, and rest of brain and nerve is disturbed through the channels and centres of audition as well as through those of motion.

The prayer of conservative physiology is for rest, for the salvation of the resisting power of the nervous system to devastating pestilence,and the power of resisting disease in general is in adequate rest of the organisms which is a condition of its repair and power.

The cause of much of the premature decrepitude and nerve degeneracy, and breakdown is in the many inventions man has devised whereby he robs himself of timely rest. The morning newspaper often read through before breakfast; the telephone in his house to call him at any and all times aside from his repose; the electric light to keep his brain unduly stimulated through the retinæ, the railroad and the sleeping coach which may keep him continuously on the rail (if he chooses to so travel) for a continuous week, without rest from the noisesome and exhaustive cerebro-spinal concussions of this mode of travel; hasty meals and telegrams, and business, and nigntmare sleep, all commingled, wither and wreck lives innumerable which, under wiser management might end differently, and the needless noises of the city, the bells and whistles, howling hucksters, noisy street cars, yelling hoodlums, that make night hideous with their howls, hasten the premature endings of useful lives, and when, superadded to all this unphysiological strain, we have the assault of a pestilence that poisons, like cholera, how much exemption can such overwrought organisms expect? How much of resisting immunity can such overstrained and exhausted nerve force oppose to the invading foe?

If the epidemic comes, as it almost surely will next summer or fall, there should be a common understanding among physicians to demand as much rest as practicable for the people and by comity among themselves, they should lighten each other's labors and no one should work continuously night and day.

It is not long after an epidemic comes before the long watching nurses and the tried over-taxed doctors become its victims.

The lesson a pestilence teaches is not only cleanliness but temperance, and restful resisting vigor for the nervous system and the conservation of its powers, maintaining the functions of the the body in the presence of a blood depressing, assaulting enemy. With the human organization, in a long contest the blood is the life, but if the nervous system have secured to itself, by ample rest and frugality and economy of expenditure; and by freedom from overstrain and vicious indulgence have established the habit of claiming and securing to recuperative use its own elements from the blood, it will be long in yielding and longer still in perishing under the assaults of disease.

It is this trained resistance of the nervous system by which it is taught physiologically, pending a successfully resisted attack, to claim its own nutrition, even while the blood is depressed by the presence of a pestilencal virus, which, in my opinion, constitutes immunity from recurring attacks; the comma bacillus is destructible too in strong healthy gastric juice as Koch has shown, and it is through a vigorous well poised nervous system that we may be assured of the destructive potency of the gastric digestive secretion. The inferior animals, too,whose nervous systems are unshattered by the vices and overstrain of civilization are largely exempt from cholera.

In time of epidemic the illy-fed, unrested, poverty-stricken or vice-broken succumb even more frequently than those whose ambition for wealth and schemes for success rob them of the full benefit of sleep and regular food and recuperating rest.

Many a man well endowed and unweakened in his nervous centers goes about unharmed with the same amount of malaria in his blood, probably, which causes another, less strongly fortified, to succumb to a fatal form of congestion.

All other things being equal, the tranquil minded and restful and daily and adequately recuperated nervous system of a community afford the best and longest immunity in time of pestilence. The unrested and unrestful, the weary and the heavy laden, the vice broken and the unsteadily endowed nervous systems furnish the most and earliest victims.

Insomnia is a thief that robs the brain and nervous system of power and circumvents recuperation—a factor in nervous breakdown more potent than all others, yet it is preventible and curable by remediable measures, public and private.

There is, therefore, without dwelling more in detail, an obvious and important sanitary hygiene for the nervous system in time of great epidemics, and the time for the beginning of preventive measures should be in advance of the actual presence of the morbid invader. That time is now,for when the pestilence shall have come and gone, those who are fittest in the tone and resisting power of their nervous system to survive,will live out the scourge. The weak and organically unprepared will succumb.

The practical deduction from the foregoing to avert cholera from the human system, in addition to such measures as quarantine it from the country or chemically destroy the bacillus and prevent it from coming into contact with the organism at all, is to eat only such slightly irritating substances as will promote the gastric secretion,without inducing catarrh of the stomach, and keep such a supply of healthy gastric juice in the stomach as will destroy such comma bacilli as may find lodgment there. Take the best possible care of the physiological vitality of the central nervous system by every known means of rest and repair by frequent eating. Maintain by normal nutrition and electrizations the necessary tone of the solar plexus and the perfect physiological integrity of the cerebro-spinal axis; keep away from the cholera infected when the system is exhausted and the supply of gastric juice is likely to be scanty or weak in quality; cultivate and maintain a state of hopeful mental tranquility by avoiding every source of mental overtax and unrest.

The successful prophylaxis of cholera consists of something more than quarantine or chemical disinfection. The chemistry of the nervous system itself, if we but invoke it, may give us aid. The cultivation of resisting nerve force involved by healthy organisms is worthy of our consideration. A wise prophylaxis and therapeusis seems indicated in adequate rest of the nervous system, in galvanism,which maintains its tone and static electricity which promotes its vigor at the same time that it has the probable power to destroy bacilli and in hot water as near 150° F. as practicable, taken internally, which gives nerve tone and dissipates congestion through its influence on the vaso-motor system and in chloral, which gives strength through restorative rest and which is also powerfully antiseptic.

The following brief epitome of the anatomical and physiological data of the subject may serve to show still more plainly how essential is the integrity of the nervous system in its highest physiological power to the prophylaxis and endurance of cholera. It is also a sufficient anatomical resume for the subject that follows.

The local innervation of the stomach and intestine is carried on through interlacing the nerve fibres and ganglion cells imbedded in sub-mucous and muscular coats. Auerbach's plexus in the muscular and Meissner's in the sub-mucous tissue. Descending from the medulla are the pneumo-gastrics,and from the solar plexus of the sympathetic comes gastric branches. The pneumogastrics and the gastric branches of the solar plexus may be said to encompass the stomach.

Vaso-motor nerves branching through the splanchichs from the solar plexus accompany the gastric vessels. These nerves have connection with medullary centres and pass the through the cerebral peduncles and thalami aptiei to higher centres in the cerebrum.

The salivary and gastric secretions as well as the movements of the stomach and bowels, are dependent upon nerve influence and the regulation of inhibition and excitation. Gastric secretion is partly a local reflex act through peripheral stimulation from the interior of the stomach, through the nerve branches which go to Auerbach's plexus imbedded in the sub mucous tissue, but the amount and quality of this secretion will depend largely upon the integrity of the general ganglionic and whole nervous system, es-

pecially upon the tone of the solar plexus and the brain.

The gastric secretion may be inhibited or excited by a powerful mental impression; a painful emotion suppressing and an agreeable one, as of the remembrance of a delicious dish, exciting it and the salivary secretion also.

A reflex from the gustatory nerves to the brain may pass to the stomach and excite it. Great fatigue as well as great pain suspend both gastric secretion and appetite.

During the week of the great St. Louis fire in 1849 the ravages of cholera, which up to that event had reached a mortality of over two hundred a day out of a population of fifty thousand, almost entirely ceased, so stimulating and invigorating was the excitement of that week to the brains and nervous systems of the people, the psychical exaltation inseparable from the sudden necessity thrown upon so many business men for repairing the sudden damage and re-establishing their suddenly interrupted business. Some of the germs, too, may have been destroyed by the great heat, but it was only the basiness part of the that was destroyed, when but little cholera prevailed except on the steamers. I was in the city at the time and recollect this to have been the fact. And after a week had expired the pestilence raged as before in all its resistless and relentless virulence.

A MONSTROSITY.

BY D. D. ROSE, M. D., CHICAGO, ILL.

Referring to the article of Wm. D. Ruhl, M. D., "A Monstrosity," I would report another, almost the counterpart in structure to the one he reported, although mine instead of being of the genus homo is of the genus ovis. It is not a fresh subject, yet it may be an interesting one among the list of "Monstrosities."

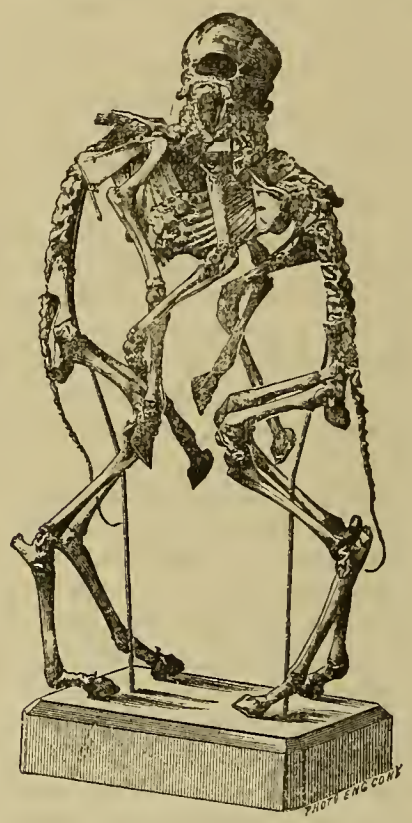
In the spring of 1881, while in Southern Indiana, the Rev. F. M. Symmes, of Paoli, Ind., brought to my office a lamb or lambs, with the following anatomical structure. The integument from near the middle of the bellies toward and including the hinder extremities was as with separate lambs. From a point just in front of the umbilici the integument was joined and enveloped a double thorax. There are four legs which are in such a position that the legs of each embrace or pass by the other. The two necks were also enveloped by the same skin. The head, having but one mouth, would hardly be called double. The mouth is turned in a direction between the two bodies. The head had four ears, two at the sides and a little anterior to their normal position; and two small ears at the back of the head, joined at the base.

There were two eyes, one a large one, located directly over or back of the nose. It had a very deep and oblong orbit. It had the appearance of having a double pupil, but upon dissection, there was found but a single opening through the iris, with a white perpendicular line in the cornea. The eye was supplied with a single optic nerve which branched at the commissure and had a right and left optic tract. The other, a smaller eye, was at the back of the head, and immediately above the little double ears. This eye had but a rudimentary optic nerve which was not developed of sufficient length to reach the brain. The orbit of the little eye was composed only of a bony disc which had but a slight connection with the cranial bones.

There is but a single brain cavity. The lateral diameter of the head is the greater; especially the base is wide, where it is attached to the vertebræ. The cervical vertebræ are parallel and face each other. At the beginning of the dorsal section each column makes an acute curve backward; then a more gradual curve forward until the lower dorsal and lumbar vertebræ are again brought parallel. These curves to the spinal column give greater expansion and capacity to the single thorax containing a double set of viscera. The ribs of each join on the sternum opposite their fellows from the other vertebral column, thus bringing the two sterna at the sides rather than in front of the vertebræ. On one side, from the fourth to the eight ribs inclusive, the ribs are joined in one flat, thin bone.

The peculiarities of the viscera, so far as observed, were as follows: There were two larynges, yet each imperfect, with a single pharynx situated between them. The epiglottis of each larynx was normal. The glottides and tracheæ were connected with the œsophagus. The cartilages of the tracheæ were arched in shape and formed lateral segments to the single œsophagus to near half the length of the œsophagus where each trachea separated from the œsophagus forming two bronchi, leading to the lungs on either side. The lungs were separate, forming two right and two left lungs complete. The œsophagus divided at a point just above the diaphragm, one branch going to each of two separate stomachs. All the abdominal viscera

were perfect, separate and complete. There were two separate hearts perfect excepting the exits and entries of the arteries and veins which were double. There were two aortæ rising from each heart, one branch from each forming a perfect arch with its fellow from the other heart. The other aorta from each heart, being in the normal position of the arch, continued as the thoracic and abdominal aorta, each with its regular branches.



The venous arrangement was quite similar and needs no further description.

REMOVAL OF EPITHELIOMA FROM INSIDE OF CHEEK WITHOUT HEMORRHAGE INTO THE MOUTH.

BY C. T. PARKES, M. D.

Professor of Anatomy in Rush Medical College, Chicago.

M. G., male, Irish, age 49, presented himself for operation with an epithelioma involving the mucous membrance and part of the buccinator muscle of the right cheek. The morbid growth extended from within half an inch of the angle of the mouth as far back as the anterior edge of the ramus of the lower jaw and measured an inch at its widest part from above downwards—circumference oval. The skin of the cheek was not implicated. One of the most troublesome accompaniments of the rather extensive operations about the mouth arises from the flow of blood into the throat. In this case a plan of operation was adopted which allowed of the easy and complete removal of the growth without any discomfort from blood running into the pharynx or larynx. An incision was carried through the skin of the cheek in such a manner as to allow a flap thereof to be raised upwards so as to entirely uncover the superficies of the growth. It was held out of the way by an assistant. Then an incision was carried entirely around the margin of the growth through all the tissues of the cheek down to the mucous membrane, the outside of which was easily recog-

nized by its white color. This cut of course divided all vessels likely to give rise to any bleeding. All divided vessels were then ligated and so far no blood at all entered the mouth. Finally the growth was removed by dividing the mucous membrane some distance from its edges. No blood in the mouth or throat; no bleeding to obscure the vision in getting well beyond all diseased tissue; the margin of the lips was kept intact. The flap of skin was replaced in position and held there by sutures; the parts all healed by first intention, and the man went to his home one week subsequent to the operation with only a healthy ulcer in his mouth healing rapidly.

The accompanying simple cut will show the line of incision and the growth.

—The Therapeutic Gazette of Detroit is to be transferred to New York and Professor H. C. Wood and Robert Meade Smith to become its editors.

THOUGHTS ON EVOLUTION.

BY AMOS SAWYER, M. D., HILLSBORO, ILL.

Read before the Mississippi Valley Medical Association.

I would not be understood as presuming to make the attempt, even if I possessed the ability, to demolish the evolution theory in a single essay, as this would necessitate the dissection of every point, and would therefore, require quite as much manuscript as the work under review.

I am aware that the opinions herein set forth lay me open to the charge of not being "up with the times," but may it not be that to be "up with the times" is to have gone in advance of evidence, reason and consciousness.

We are all inclined to accept as true the assertions of scientific men, assuming that they have been thorough in their research, and therefore cannot be mistaken in their discoveries or conclusions; all this in the face of the fact that we cannot name a department in science, but investigation proves that its followers have, at times, jumped at conclusions, based upon insufficient evidence and stated them as facts only at a subsequent period to discover their error and recant. When the House of Lords in England were investigating Stevenson's project for a railroad Sir Astley Cooper was asked what would be the effect on passengers traveling at the rate of 25 miles an hour, and he promptly replied, "It will fill your madhouses; the human brain cannot stand the whirl produced by rushing through the atmosphere at such a rate;" and this opinion without investigating the reason for such conclusions, was accepted as true and heralded throughout the land as one of the princpal objections to this new invention. Yet Stevenson, the illiterate coal-miner, had the boldness to declare and soon demonstrated, that the greatest surgeon of his day, was wrong in his conclusions,

It is safe to say that at the present time nearly every scientific man has accepted the theory of evolution as the most reasonable solution of a question, which without acknowledging the existence of a creator, would account for the presence of life in all its various phases. With this acknowledgment, the plan is unnecessary, unreasonable, and complicated. True, Darwin says: "A few forms were created capable of developing into other forms as needed," and this would necessitate the existence of a creator but such conceptions of the Deity, so contrary to biblical verity, could only result as it has, in adding to the atheistical ranks, and therefore a large proportion of his followers believe, that life was induced by "external circumstances."

It is my purpose, as succinctly as possible, to show wherein the evolution theory is contrary to the evidence, and therefore to reason. I shall attempt to show that everything was created for a purpose, and ceases to exist only when the purpose is fulfilled. That it is unreasonable to suppose that God would bestow His Divine Essence (the soul) on so repulsive a being as an ape, (and it could never become man without this addition); or if so, it is reasonable to suppose He would include them all, and thus extinguish the species; that the fossil remains of animals afford no evidence to sustain the theory, simply showing extinction, and not merging of the species.

It is, therefore, after a careful survey of the subject that I now direct your attention to a few philosophical reasons and physiological facts, which to me, seem incompatible with the theories of evolution, descent, or selection.

As Hæckel says that, "there must be a blind belief in the creation, or a scientific theory of evolution, there is no third course," it would be as well perhaps to give an outline of the "theory," in order that we may see the reasons for the faith that is within him, as well as how much science, in this case, depends on "blind belief." He says, "After many millions of years, during the Archolithic epoch there came into existence by spontaneous generation, through a nitrogenous carbon compound in the sea, the oldest and simplest organisms—the monera; from these one-celled plants and animals first developed, then all the invertebrate ancestors of the human race developed from these one-celled organisms, hence, this epoch is the age of man's invertebrate ancesters. In the Palæolithic period (Devonian—old red sand stone; Permian—carboniferous, new red sandstone), we have fishes preponderating; or, the age of fishes. During this period some fishes began to accustom themselves to living upon the land and thus gave rise to the amphibia class, which we find in the carboniferous period; these were the earliest air breathing animals. Toward the close of the Permian period we find the first amnion, or lizard-like animals. In the Mesolithic, or secondary epoch (Triassic, Jurassic, Cretaceous) was the age of reptiles; but the class of birds also developed during this period, undoubtedly originating from the flying lizard-like reptiles, from the fact that fossil birds with toothed jaws and lizard tails belong to this period. It was in the Triassic strata of this period that we find the molar teeth of a small insectivorous marsupial, and all the mammals of this period belong to the low pouched animal division. The fourth division of the history of the organic earth is divided into three subdivisions: Eocene, Miocene, and Pliocene periods. This the Tertiary epoch may be called the age of mammals. The most perfect section of this class (placental animals), among which is man, now first appeared. The development of man from the most nearly allied ape-form, dates probably from the Miocene period (Vol. II., pp. 11-15.)" Now, the strata, he says, deposited during this period were about 3,000 feet thick; and that the deposition went on at the probable rate of two inches for every 100 years; this, then, makes 600 years for every foot, or a total of one million, eight hundred thousand years. Now in this deposit there has been found about 1,000 species of shells, only one-fourth of which are extinct; also, the crab, lobster, shark, seal, crocodile, horse, ox, different species of deer, bear, dog, cat, otter, beaver, hare, and a host of other animals, living specimens of which exist at the present day—in fact everything but man. Is it not strange that none of these should have been found in a state of transition? It would also appear that all the different species we find on earth now, existed then, and that the law now in force—that the offspring is of the same kind with its parents,—is at least over two million years old. Thus, we see that we must believe: 1. In something which does not exist to-day—spontaneous generation, through a nitrogenous carbon compound, 2. That one-celled plants and animals developed from this

no-celled creation these developed into fish; then some fish crawled on the land and accustomed themselves to living in an unnatural element, breathing air through their gills until lungs developed from their swimming bladders: this gave rise to the amphibia; these turned into lizards, some of them having wings; these turned into birds and birds into mammals, including man and the monkey; that the chief modification of animals and plants result from the use or disuse of their organs. For example: "the wood-pecker and humming-bird developed their peculiarly long tongue by the habit of using this organ to take their food out of narrow and deep crevices."

Query: How was this habit established? Why not secure their food like other birds?

"The frog acquired a web between its toes from the habit of swimming." Query: If he was not created to swim why did he partly live in the water, and why was it necessary for the eggs to be deposited there?

"That the mammæ are merely large sebaceous skin glands, and were developed in the marsupialia by the young sucking a gland." Now what would you think of the mental vision of one who would believe that the contents of a sebaceous gland could sustain a young animal? Now I ask you if this explanation of the operation of evolution does not require a greater stretch of the imagination and credulity than any before presented by either science or religion. Why it is the worst kind of "blind belief"—it's mammoth cave blindness, for there are no eyes at all! That Hæckel recognizes this fact, is evident when he says: "The special proof of all separate parent forms must always remain more or less incomplete and hypothetical; for all the records of creation upon which we rely are in great measure incomplete and will always remain incomplete. For the germ history itself is known to us only in the case of very few species."

As it has been denied that Darwin claimed that man descended from the ape, I will give his exact language in two of his many declarations upon this point: "As man agrees with the ape in all these characters which he possesses in common, we may infer that some ancient member of the anthropomorphous sub-group gave birth to man." "The species have not been separately created." "In regard to bodily size or strength, we do not know whether man is descended from some small species like the chimpanzee, or from one as powerful as the gorilla, and therefore we cannot say whether man has become larger and stronger, or smaller and weaker than his ancestor." It is, therefore, strange that a man possessing the faculty for observation shown by Darwin should, with the evidence at hand, have made the attempt to prove that man was evolved from the ape; an animal governed in its movements entirely by instinct; no one of them possessing more intelligence than the rest. Physically they approximate man more closely than other animals; but in point of intelligence they are the inferior of many. From such an animal sprung man, a being so unlike them physically and mentally, that there are more points of difference than agreement between them, except in the formation, repair, and waste of the osseous, nervous and muscular systems, which would essentially be the same in producing certain mutual movements of the limbs, in all forms composed of flesh and blood. For I do not see the reason why animals should not possess similar means for the accomplishment of mutual ends upon which our existence or movements depend, without the inference that in consequence they must be of the same descent. It is a deviation from the procreative law without a parallel, for the offspring. man, although alike in his animal nature with his fellow-man, to differ from his original progenitor, (the ape) in the possession of extra bones in the spine, an extra muscle in the hand, and different insertions of mutual muscles, not to mention form and expression; while mentally, unlike the ape (one the equal of all the rest), they range from the mass on the ground, to him who stands on the mountain of knowledge far in advance of all others.

The evolutionists inform us that man's consciousness has been gradually progressing from the lowest to a higher sphere of thought, knowledge and morality. Ethnology proves to the contrary for it shows a mental ebb and flow. Confucius, who lived 550 years before Christ, could find no reliable data for the events recorded in Chinese history, beyond 200 years prior to himself. This proves the priority of Egyptian chronology; for the great pyramid was erected in the Fourth Dynasty, and has been shown by Mr. Smith, of the British Museum, with other scientific men, to have been designed to perpetuate certain mathematical and astronomical truths, which we, at the present day, can do no more than verify. The specific gravity of solids is determined by the theorem of the renowned Archimedes, by which he detected fraud practiced upon King Hiero, of Syracuse, by the goldsmith who furnished, as a crown of pure gold, one of base metal. Compare Homer. Cicero, or Shakspeare, with the authors of the present day. In art, Michael Angelo, Raphael. and Van Dyke. In science, Copernicus, Galileo and Newton. In engineering, look at the Roman aqueducts. In architecture, the Coliseums and Egyptian pyramids. For inventive genius in forging steel, what will compare with the Damascus blade. Combining the keen edge of the razor with the elasticity of whale-bone, it could be tied in a knot without breaking? How was steel treated that, no matter what the exposure, it would never rust? How were images of glass blown into balls of the same material to remain loose in the cavity containg them? These are a few only, of the lost links of knowledge evolved from the brain of an ancient race of people. If your child expresses a wish to become a sculptor, a painter or a musician, in order that he may excel, he is sent to Europe to study the works of the old masters. Even Aristotle is credited with writing the first history of evolution. Again, if this theory is correct, then the offsprings of our learned men, or bright minds should excell their parents, but, on the contrary, as a rule, they prove to be intellectually, inferior to their sires—(retrogressive evolution); whilst he who advances to the front of science, usually flashes his light, like the meteor, from a direction we least expect.

Lamarck says: "The most highly developed apes accustomed themselves to walk erect, and gained the ascendent over other animals. The absolute advantage they enjoyed, and the new requirements imposed upon them, made them change their mode of life, which resulted in a modification of their organization, and in their acquiring many new qualities, among them the wonderful power of speech." Darwin accepts this, for he says: "As far as we can judge, the

tail has disappeared in man and the anthropomorphous apes,owing to the terminal portion having been injured by friction, during a long lapse of time.—(Descent of Man. pp. 60, 1881.) Hæckel says: "Bats probably developed their wings in their flight from tree to tree to escape an enemy,or in search of food." So we see that friction is an important factor in evolution.

How about flying-squirrels? Are they about to be evolved into birds?

Man is the only being endowed with speech because he is the only one upon whom God bestowed the scintillation of His essence (a reasoning soul);or that faculty which enables him to look backward over his past life and that of the generations which have preceded him, and profit by his and their experience.Forward to so guide hiscraft as to be able to "luff and bear away" from the obstructions and dangers by which he is ever environed.and which through carelessness or over confidence has wrecked many a staunch craft sailing o'er life's stormy sea! Upward,from the boundless depth with which a parent loves; from the charms of pleasure, from the lures of gain to a lovelier image of the purely beautiful—that of the Creator of the Universe, who has prepared for us in the realms above, a purer, brighter, happier home, "where the eternal dialect of love, shall be the free gift of every living soul!" Whence sprung such emotions? Can it be from apes? Never! for they were not, and are not in possession of them. Animals emit sounds expressing anger, fear, etc., and cannot change them. Words are sounds, but they are not expressive of ideas unless they are used by a certain rule agreed upon by those to whom they are communicated. This is language and is the result of thought and knowledge, and as we cannot have thought and knowledge without language they must have been bestowed at the same moment. The mind of man is an actor, originating ideas which are absolute. Apes emit sounds like other animals, induced by external impressions, not produced by the mind. Language, like the soul, is indispensable only so far as human nature is necessary; and could not be evolved from an animal never in possession of it.

Another branch of the evolutionists inform us, that there was a time when this earth was a fiery globe, when animal and vegetable life could not exist; but so soon as the temperature permitted "organic life developed itself from external circumstances,"or "spontaneous generation through a nitrogenous carbon compound." (He must have taken this from the advertisement of some quack medicine.) In other words something was evolved from nothing and therefore had no parents. Now, if this was the case,why does it not happen to-day, and crowd the earth with organic life? That it does not, we are all conscious; for even the ciliated infusoria, so minute that millions and millions of them are swallowed in a single draught of water, reproduce their species by means of eggs, formed in special generative organs, fecundated by the union of the sexes; and their organization is as definite as that of the other classes of the animal kingdom. Therefore the suspension of the law of evolution, if at one time in force, is a miracle, and this proves the existence of a lawmaker. If this Creator had the power and wisdom to form a world like ours, it must have been for a certain purpose, and this creation, be it animal or vegetable, organic or inorganic, will exist until the purpose is fulfilled. The evidence for this assertion is furnished us in the extinction of certain species of animals, whose fossil remains gives evidence of their gigantic size. Why did evolution cease in this direction? The American bison will soon be added to the list with others to follow, as the object for their creation no longer exists. Years ago the destruction of our pine forests would have excited the greatest alarm; but at present metal substitutes have been found to answer the purpose better, hence the demand will equalize itself to the production. The pine has in a measure, in this country, fulfilled the purpose for which it was created; and its extinction as such is sure to follow.

Admitting the theory of the survival of the best developed of each species, and the consequent increased development of the osseous and muscular tissues, in their offsprings over the original stock, as witnessed between the wild hog and our improved breeds, yet in the one case it would be an infusorium, as in the other it is a hog; for it is the law of nature that animals and plants are of the same kind with their parents, and there is no deviation from this, though the final result may not be immediate. The caterpillar is a young butterfly, though so different in appearance from its parents at this stage of its existence. Consesequently the different species in the animal and vegetable kingdom have remained without essential change since the earliest historical record. It is a germination, growth, blossoming, fructifying, decay and death, resulting from the operation of laws in force since the world's creation. Therefore the only way the necessary change in species can be effected necessitates the merging of one species into another. Unfortunately for the evolutionists, this ends with the first generation, for hybrids cannot procreate. This points, not to chance, but to a wise provision of the Creator, for it serves, not only to keep every species distinct, but it also places a barrier before the evolutionist which he cannot remove, as it matters not what change may be wrought in an animal, either in size, form or color, it will still retain the distinctive features, which enables us, without a moment's hesitation to say this is a dog, that is a horse, and so on to the end of the list. Take a group of men, for example; each one will differ in some respect from the others, yet the veriest fool or ignoramus, anatomically is still a man, and he whose brain has evolved until he stands at the head of science is no more. I am aware that some evolutionists claim that a change of food and condition is all that is necessary to produce the wonderful transformations which they claim has taken place in the past. Haeckel says New Zealand possesses two species of bats found nowhere else in the world, and many islands possess their peculiar bats that he accounts for by saying that they were some wandering species modified in their new home by change of condition. They also cite the honey-bee as an example,where in case of necessity, a nenter can be changed into a queen-bee by merely changing the food; grant this, but is it not a bee and easily recognized as such? Let them change a bumble-bee into a honey-bee (query: which was evolved fromt he other?), a cow-louse into one of the kind infesting the horse or man. If the theory about the change of food is correct, there should be more points of agreement than difference between a hornet and a spider, for they both catch flies for their young,and so on ad infinitum.Cattle-

lice would need only to be transferred to the horse or man to become evolved into the parasite which naturally infests them, whereas, on the contrary, they die shortly after the transfer. Every species of animals has its own epizoa and entozoa, and they die when transferred to an animal of a different species. They are confined to the part where they find the proper pabulum for their development. To illustrate, one kind of distoma is found in the lungs of the green frog, and another kind in that of the brown frog. One species of fly deposits its eggs in the back of the ox, and another kind, the larva of which is five times as large, uses the head and neck of rabbits, squirrels and cats for its nidus. The food of the racoon and opossum are almost identical, yet the small white worm infesting their stomachs is readily distinguished by an expert as distinct and therefore as inhabiting different animals. The blood of one genus of animals is unfit to carry on the functions of life when injected into the system of an individual of another genus. If human blood or that of a sheep be injected into a dog after it has been bled to syncope, resuscitation for a time occurs, but it is not lasting; the power soon begin to droop, and after a few hours or days of languid existence death ensues. So it is from an infusorium to an elephant; you cannot change them into anything else. Now when we see that it is impossible to change the form of an insignificant louse, because it cannot live on an animal of a different species from the one it naturally infests, and that the blood of one genus of animals is unfit to carry on the functions of life in another, what does this lesson teach us? and what deductions should be drawn from it? Perhaps Agassiz has expressed, and compressed an answer as beautiful as it is terse: "Every species is an embodiment of a creative thought of God." In other words it tells us in language so plain that it cannot be misunderstood, that every living creature, no matter how insignificant, was created for a special purpose and can exist only under certain conditions. Therefore we conclude that the purpose could not have been changed, because this would necessitate a change in condition, and this, as we have seen, proves fatal; so then, if the purpose cannot be changed, they are not susceptible of evolution, and it is therefore useless to attempt to prove that man was evolved from "monera, nitrogenous carbon compound, an atom of original slime," or any other name fancy may suggest, but which must have been originally created, for all that.

[TO BE CONTINUED.]

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

REPORTED FOR THE REVIEW.

Stated Meeting October, 25, 1884.

DR. WESSELER.—I have a specimen here of an aneurism from a man 46 years old who was admitted to the hospital in the middle of September. He worked until July. He was a bridge builder. During the hot weather he drank a good deal of impure water; this he deemed the cause of his disease. Another thing that seemed to prey on his mind was, that he had some time previously had a chancre, and he was inclined to attribute his trouble to syphilis; however there was no evidence of secondary syphilis, no manifestation of it at all. He certainly in my opinion never had suffered from anything but a simple sore. The rapid development of this aneurism of the aorta is a point of interest. When the man was admitted he was very edematous at the extremities, and his throat was very much swollen and the face very much puffed; breathing was labored and there was inability to lie down, so he had to sit up in a chair all the time, until after he had been thoroughly put under the influence of digitalis; then he was able to rest and to resume the recumbent position. An hour before his death some of his friends came around to see him and he expressed the opinion that he would soon be out. He remained in his chair and was therein found dead. A rupture took place posteriorly and the blood was poured into the posterior mediastinum. He was sick altogether, I presume, about nine or ten weeks, from his statement. He was four weeks in the hospital and he stated that he had been sick about five weeks before was admitted, and that previous to that he had enjoyed good health. He was a robust, well-developed man, physically strong, and presented as good an appearance as you will ordinarily find. In fact you seldom find any stronger man. He claimed that he always had done very hard work; bridge building requires strong men. This disease evidently developed from an inflammatory process and the rupture took place suddenly and death, of course, was the result; that is all I know of the case.

DR. POLLACK.—When you say that the man was edematous and swollen, do you mean the inside?

DR. WESSELER.—No, Sir; only the outside tissues. The valves of the heart were in good condition. The diagnosis was made immediately on his admission and was verified by other physicians during his stay at the hospital.

DR. MEISENBACH.—Was there atheromatous degeneration of the arteries elsewhere?

DR. WESSELER.—No, sir. The suddenness of his death was a confirmation of the diagnosis; of course the post-mortem was satisfactory, showing in what way death occurred.

DR. ATWOOD.—In the physical explorations ante mortem, I would like to have Dr. Wesseler state whether he detected the aneurismal bruit?

DR. WESSELER.—Yes, distinctly.

DR. ATWOOD.—The reason I asked the

question is because heretofore while discussing this subject it was contended on all sides, that the aneurismal bruit was not always present in this condition. The affirmation was made, that it very often was not characterized by the bruit, but Dr. Wesseler states in this case that he and others detected the bruit.

* * *

Dr. Meisenbach.—I desire to report two cases of acute hemorrhage from the kidneys, due to traumatism. I now have under treatment the second case that I have seen within the last three or four months. Hemorrhage of the kidneys is mentioned in our standard text-books, but the symptoms presented in these two cases being so marked and not being fully described in the text books, it seems to me that they are of interest. The first case that came under my observation was that of a young man, 23 years of age, working in a wood-cutting establishment. He undertook to haul a log when one of the log-chains slipped and flew up and hit him in the right lumbar region a little below the margin of the liver. When I saw him he was evidently in a half collapsed condition: the pulse was thread like: the skin pallid and moist: he complained of pain at the seat of injury. I found no evidence of fracture of the ribs or any of the vertebræ and supposed it was nothing more or less than a severe contusion in that region. An hour afterwards he had a desire to micturate and the urine that passed was wholly composed of blood, at least the major portion of it was blood, pure blood. Then he began to complain of severe abdominal pain in the epigastrium and a very irritable stomach. The pain was continuous and the stomach was so irritable that remedies had no effect upon him. I gave ergot hypodermically, one to two drachms of the fluid extract of ergot. I made no attempt to give ergot by the mouth, because he would not have retained it. I also gave morphine, one-quarter grain doses, which were rejected by the stomach, so that I had to give it hypodermically. He lingered along after the first injection of the ergot: there seemed to be a diminution in the quantity of blood voided, and I continued the injections. The urine gradually cleared up until it became the color of coffee grounds, and then cleared up still more. I examined the urine very carefully expecting, possibly that suppurative inflammation might follow the injury, but I found no pus, and two or three weeks after the man was able to go about, though still unable to attend to his business.

The second case occurred a week ago today and the injury was very slight indeed. A young boy, 16 years old, of rather weakly habit, stumbled and fell against a wall projecting from which was a piece of wood and struck himself a little below the margin of the liver in the lumbar region. When I saw him about an hour after the accident he was presenting the same general features as were presented in the case already described; there was an anxious weakness and thready pulse, pallor of the skin and perspiration. In this boy also there was another feature which afterwards came into play and which somewhat complicated the case. He has a tendency to heart disease. Not long ago one of the members of the family died of heart trouble, and I found that within twenty-four hours after the injury this patient was troubled with excessive activity of the heart's action, so much so that I gave digitalis in order to bring down the frequency of the beat. The condition of the stomach was comfortable: there was great irritability, but not so much so as to reject the remedies. The pain in the epigastric region was very marked, and it continued marked throughout the whole time of the treatment, to-day being the eighth day. Two days after the occurrence of the injury a circumscribed peritonitis was diagnosed with very marked local symptoms about the place of injury. The urine that the boy voided within an hour after the injury was also bloody, in fact it was pure blood. I gave him ergot in drachm doses every three hours until I found the quantity of the urine increasing and more like normal, gradually becoming paler. Finally there was no blood in the urine at all. In this case there seemed to pass shreds of mucous membrane, which I thought possibly might be the lining membrane of the ureter and a portion of the pelvis of the kidney, which had become disengaged by the profuse hemorrhage and found their way to the bladder and then to the external world. Of course I am not positive of this, but it seems possible. I made no microscopical examination to determine this. In this case also there was no secondary suppurative inflammation, at least there has not been so far. The fever has subsided and the tenderness of the peritoneum has also subsided. Now this class of injuries seem often times to be due to very slight violence. In both cases, and in the boy's case especially, the cause of injury was very slight. The symptoms are so marked that after having seen one case the physician will not be liable to mistake another after having had a full history of the injury. In both the cases there was no passage of urine and there were no signs of hemorrhage until within an hour afterwards.

I suppose the bladder became gradually filled with the trickling of the blood from the kidney down the ureter. Possibly urine may have been in the bladder,and the tendency to urinate would be increased so that there would be a desire to micturate a little sooner than there otherwise would have been.

Dr. Dudley.—How long did the hemorrhage continue?

Dr. Meisenbach.—At intervals it continued in the first case for about two days and in the second a little less than two or three hours. I wanted to call attention to the very energetic action of the ergot. After my first hypodermic injection in the first case I could see that there was a diminution in the quantity of the blood, and after every successive injection there seemed to have been less; and in the second case after I first administered ergot by the mouth there was a diminution and after every successive dose. I crowded the ergot to the full extent that the stomach was able to bear it. I wanted to call attention especially to the subjective symptoms; this marked pain in the epigastric region being the main symptom, and that not subsiding until the hemorrhage had partly passed away. There is no mistaking this trouble after having seen it once. A person who had one of these cases and afterwards saw a similar case would not mistake the symptoms or the cause of the trouble.

Dr. Pollak.—Do you think that the bleeding was due to a rupture of the kidney or to a contusion?

Dr. Meisenbach.—I am not able to determine. My opinion is it was due to the rupture of the minute capillaries of the urinary tract.

Dr. Dudley.—To what do you attribute the epigastric symptoms?

Dr. Meisenbach.—I think they are due to reflex action—the pressure of the blood.

Dr. Dean.—Mr. President, it is invariably a requirement with us that when any person comes into the hospital who has received any severe injury by way of a fall, or being struck or being injured in any such way, he shall be catheterized with a soft rubber catheter to ascertain the condition of the bladder, and as to whether there is hemorrhage of the bladder or kidneys; and the number in which this condition occurs is surprisingly larger than one would suspect, the urine being usually carried off and not observed. Sometimes a patient will pass urine in a few hours, sometimes a single time, other times three or four times; if they do not pass urine I always give the extract of ergot, and in case of hemorrhage I find that it passes off in the majority of cases unless there is some severe lesion.

Dr. Pollak.—I happen to have a case of hematuria on hand for nearly a year, a man of 50 years of age, a farmer, living near Edwardsville, and the quantity of blood which escapes with the urine is wonderful. Blood is passed daily, and if you allow the urine to stand it will be found as coagulum and precipitate in the bottle. The urine is loaded with albumen. On boiling it, the quantity of albumen precipitated is very large indeed. Of course, I take it for granted that the man has Bright's disease, but how he stands it as long as he has I cannot account. Ergot, digitalis, and tannic acid, all are useless. I have given them all in large quantities both hypodermically and internally, and it does not seem to have the least effect. He has found the greatest relief to result from the use of Bethesda water, but he has discontinued its use. I could never account for the large quantity of blood which appeared in the urine for such a long time as it has—for a year now he has come to me; there is no heart trouble at all. I see occasionally some little edema of the body, but it does not last long; it subsides again and he attends to his business. Such a loss of blood as he has every time he voids his urine is something wonderful; certainly the remedies that I have given him have proved thus far useless.

Dr. Dean.—Possibly the hemorrhage is from one kidney?

Dr. Pollak.—I am not able to say; there is no pain whatever. His general health is fair considering the constant daily loss of blood; he looks anemic but otherwise is in a moderately fair condition; he sleeps well, has a good appetite, can walk considerable distance with little fatigue. He gets out of breath and that troubles him more than anything else; but there is no valvular disease at all. Bethesda water seems to have a most wonderful effect on some people. A kinsman of mine living in Washington City, who is nearly 70 years of age, has been complaining of some sort of urinary trouble. He didn't know what it was, but always imagined that there was an enlarged prostate gland. I happened to be at the Centennial and suggested to him that he should be examined by a good surgeon to see if there was any stone in the bladder. He was examined and a large calculus was found by Dr. Lincoln, who operated on him and removed a stone about the size of a walnut; I don't know how heavy it was. He soon got well and went to work again; he is connected with the Attor

ney General's office. But a few months after this operation had been performed he began to have the same symptoms of urinary trouble again, and he could not remain in Washington under treatment as it is very costly; they charged him $500 for the operation. He went to Cincinnati and a physician, an old school mate of his, found another calculus, and this was removed, but, strange enough, the incision would not heal up. A lateral operation was performed and a large fistulous opening remained that would not heal. On examining him carefully we found the whole interior of the bladder was lined with calculi, regular stalactites over the whole interior of the bladder, and we didn't see that there was any possibility of getting rid of these concretions. He went to Waukesha and in less than four weeks after he reached Waukesha he was well and has remained so since, but he is obliged to drink the Bethesda water ever since. If he stops the use of it for a day or two he feels the effect; he is obliged to drink Bethesda water constantly. This is a singular case; these concretions accumulate in his bladder very rapidly and the Bethesda water keeps them in a state of solution. His health is not good of course, but he is now considerably better than he has been. Do you use it in the hospital at all Dr. Dean?

Dr. Dean.—I have never tried it, no sir.

Dr. Love.—To me hematuria is a very interesting subject. At the present time I have a very interesting patient suffering from that trouble. About two weeks ago I was called to see the patient, a lady, about 54 years old. Her menopause occurred about five years ago. For a few days about that time she had similar symptoms, which passed away however. When I was called to see her, there had been an evacuation of the bladder and there was in the vessel a very large amount of blood. I had two specimens examined; there was a large quantity of blood in it. In my judgment the hemorrhage was from the kidney; hemorrhage from the bladder, I take it, is apt to be of a bright color, more nearly the color of blood; it is sometimes accompanied with clots. In this case there were none. The color of the blood, which was in the urine, was dark. There was entire absence of pain or disturbance about the bladder. The urine was of a smoky color, and the fact that the patient sufferered pain about the loin and some over the region of the kidneys confirmed me in my opinion that it was hemorrhage of the kidneys. The history of the case was, that the patient had been the night before out on the front steps for at least an hour in thin slippers and she had all the symptoms of having caught cold. The greatest amount of trouble arose from the nervous perturbation of the patient; she was greatly alarmed. Sometime before she had presented some symptoms which suggested to me that she was somewhat scorbutic; the skin in two or three places presented patches and the appearance of the mucous membrane of the mouth and the gums, although the peculiar spongy appearance of the gum was not so marked as is usual in that trouble, presented the symptoms of a somewhat scorbutic condition. This observation which had been made a few weeks before recurred to my mind. I was again of the opinion that there was a scorbutic condition and prescribed the remedies indicated. There were also marked evidences of malaria; I prescribed quinine and mineral acids, and I also gave a quantity of fluid extract of ergot. About the second or third day there was a decided improvement, but at the end of that time there was an increase in the amount of the trouble; this, however, was produced by the discontinuance of the ergot. I continued the ergot again and kept up the quinine and the mineral acids, changing from nitro-muriatic acid, which I had given, to the hypophosphoric acid. After three days more I left the ergot off for a day. There had been a diminution of the blood. Yesterday the amount of blood in the urine had increased and I resumed the ergot giving thirty drops every four hours. In the meantime my patient's general health has improved, the pain in the back has disappeared and she is feeling very much better. I kept her quiet directing her to engage in as little exercise as possible, in the meantime continuing the acid, which I gave her in equal parts with an infusion of red cinchona bark and with pepsin, fearing that the remedies given might interfere with digestion. I have been giving thirty grains of quinine a day. She is a very nervous patient and very apt to suffer from indigestion. The blood has entirely disappeared from the urine. I hope I am correct in my diagnosis; and I would like to hear the experience of any one who has treated such a case. Some years ago I had a similar case but it was in an entirely different patient and soon passed off. This has continued for sometime, nearly three weeks altogether now, but the general conditions are improving and I believe my patient will eventually recover. It is to me a very interesting case on general principles, and at the same time it is a case such as we all meet with from time to time, and very important to us certainly. I would

be very glad for any suggestions on the subject.

Dr. Pollak.—Was there any evidence of degenerations of the arteries?

Dr. Love.—None whatever.

Dr. A. Green.—I have seen cases, and I suppose so has every other gentleman here, where epistaxis and like symptoms of a very severe degree, were more or less the result of malaria; and the remedies which cure the malaria produce recovery from this trouble. Then again I have seen cases where there was hemorrhage of the uterus, due merely to malaria, and, I take it, that there are cases in which there will be hemorrhage from the kidneys simply as the result of malaria. So it appears in this case where we hear that the patient has been suffering with malarial poisoning. I am inclined to think that the whole process is just dependent on malaria, and as soon as the malaria is cured there will be no more hemorrhage.

Dr. Meisenbach.—The doctor stated that in hemorrhage from the bladder the blood is usually of a bright red color, while from the kidney it is of a smoky color. I would like to ask the doctor to explain this. Is not the color rather to be referred to the quantity than to the quality?

Dr. Love.—Trousseau, I think, gives the explanation that in hemorrhage from the kidney the blood is so long in reaching the bladder that it undergoes a change in color before it reaches that point. Of course, in hemorrhage from the upper portion of the bladder or when the blood is retained it is also of a somewhat smoky color. But in hemorrhage from the neck of the bladder or urethra the blood would generally pass readily and there would be no change occuring. And I think, although I do not know that the statement is absolutely true, that it is a fact, that hemorrhage of a dull color is one of the symptoms which suggest that it comes from the kidney. It seems to me this explanation is the correct one.

Dr. Dean.—The same is true of the stomach. If there is hemorrhage from the stomach and the blood remains there for sometime it becomes dark. If blood in the bladder passes out readily it will be of a brighter color than if it remains for sometime and becomes mixed with urine and other substances.

Dr. Meisenbach—In the cases I reported the blood was bright red and it seems to me it was due rather to the quantity that was vo ded than to the quality of the blood; when hemorrhage from the kidney is very profuse and the blood trickles down rapidly it might retain its red color; while if there is only a little blood from the kidney that finds its way to the bladder slowly and stays there sometime, becoming mixed with the urine and partly decomposed, it will produce this smoky color. There no reason why the blood from the bladder should be of a brighter color than that from the kidney unless it requires longer for it to find its way out.

Dr. Dean.—Blood which passes from the kidney has so much further to travel that it is apt to become decomposed and mixed with other matters so that the color would be changed.

* * *

Dr. Hughes read a paper on the Hygiene of the Nervous System and Mind.

RESOLUTIONS OF RESPECT.

Whereas. It has pleased an All Wise Providence to remove by death. from the Ogle County Medical Association. and from our midst. our beloved brother and co-worker. Dr. C. M. Whiting; therefore. be it

Resolved. That we regard the untimely and sudden death of our brother as a grievous and irreparable loss to the people of Ogle County. Sorrow fills our hearts that a professional brother of such sterling integrity should be cut down in the very noonday of manhood and in the height of his professional usefulness.

Resolved. That we also testify to his uniformly kind and courteous treatment to his professional brethren. as well as to the suffering poor to whom he was always ready to lend a helping hand. That in social life he was a man of unsullied integrity and truthfulness. a warm. generous and sympathetic friend.

Resolved. That we deeply sympathize with his bereft companion and afflicted relatives. in the death of our colleague. and we recommend them to the care and consolation of the Great Ruler of the Universe for comfort in this their great sorrow.

Resolved. That a copy of these resolutions be presented to the sorrowing family of the deceased and that they be published in the Weekly Review and in the Ogle County newspapers.

D. Newcomer. President.

W. T. Speaker. Secretary.

L. S. Hall, W. W. Burns, J. B. Snyder. } Com.

—Why negroes are black.—Surgeon-Major Alcock has contributed to Nature a communication on the reason why tropical man is black. in which he suggests that. as in the lowest animals pigment cells placed behind a transparent nerve-termination exalt its vibration to the highest pitch. the reverse takes place when. as in the negro, the pigments are placed in front of the nerve-termination. and that the black pigment in the skin serves to lessen the intensity of the nerve-vibrations that would be caused in a naked human body by exposure to a tropical sun. In fact. he thinks that the pigment plays about the same part as a piece of smoked glass held between the sun and the eye.

THE WEEKLY MEDICAL REVIEW.

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REDUCTION OF DISLOCATION OF HUMERUS—The Southern Clinic thus gives Dr. Gissler's method of reduction:

"In my cases the patients do not even have to sit down and I operate thus:

1. The elbow is pressed against the abdomen and then gently drawn outwards until resistance is met with.

2. The forearm is then raised as high as possible towards the opposite shoulder.

3. Then the whole arm is drawn outwards and the operation is finished."

This is a valuable addition to our knowledge of the operationswhich are daily needed. It is simple, accurate and may be of use.

ANTISEPTIC DRESSING.—The extensive influence which antiseptic dressing has exerted over the general practice of the profession must be our excuse for referring to it so often. Our conviction is that each man has to be a rule unto himself in the course which he may adopt relative to a given case. Only two years ago we believe physicians could have been found who would not have hesitated to have appeared in court against a brother practitioner had he ventured on a capital operation without the use of antiseptics. It is remarkable however how things are changing. Carbolic acid has been found wanting in so many cases that we find even Lister himself giving it up, as well as iodoform, and is looking in the direction of corrosive sublimate. After confessing to several cases of septicemia notwithstanding the most careful antiseptic dressings, he tries to overcome the objections to the least objectional form of antiseptic dressing, namely the corrosive sublimate, by introducing a gauze or cotton saturated with a mixture of blood serum and corrosive sublimate. This blood albumen he suggests may be obtained from the slaughter of horses. Speaking of the incorporation of the serum with the cotton he says:

"They are perfectly amalgated(!) and therefore from a gauze like that, no corrosive sublimate can fly off."

It would seem as though Sir Joseph was in league with the manufacturers and is determined at all hazards to keep up some "antiseptic." We have several times referred to the use of clean pieces of soft linen in connection with wounds and remember with pleasure and satisfaction the facility with which Paen of Paris disposes of bleeding and protects his wounds by means of clean soft towels. When operating in the hospital in charge of the Sisters of Charity he always has at his side a pile of clean warm towels, and never uses a towel more than once. He, like some of the old practitioners in St. Louis, relies on blood and the close coaptation of parts as his antiseptic. Sir Joseph Lister has a long lecture on the subject with cases to substantiate his new antiseptic, but the effort seems like the last struggle for existence, and we think that Dr. Martin, who at first gave the antiseptic methods fifty years of existence and reduced it to twenty-five after he had seen Sir Joseph operate, may now well reduce it to five. We do not think it necessary to quote from this long lecture; we do not think our western men will be such lambs as to purchase cotton saturated with blood serum and corrosive sublimate as a surgical dressing, but we do think it advisable to quote the following from the American Journal of Obstetrics.

Dr. M. Hofmeier, of the Royal University Gynecological Clinic, Berlin, says:

"Continued attention is still devoted to the question whether corrosive sublimate, as hitherto employed and largely recommended,

is quite harmless in its application to obstetrics, or under what conditions the danger in its use may possibly be increased. Owing to the manifold advantages in the employment of the sublimate over that of carbolic acid, the question is indeed of the greatest practical importance. In my last report I mentioned an indubitable case of sublimate poisoning at our clinic and a similar one by Stadtfeldt, which latter has since then been patho-anatomically confirmed in a communication by Dahl (Copenhagen). Another case of this class, fortunately terminating favorably, has since been reported by Stenger, of Mannheim; and I am able at present to give the histories of two additional cases from our clinic which may perhaps throw some light on the circumstances under which the danger of this agent is augmented.

The first case was that of a primipara, aged 25, who had been long in labor and showed some symptoms of fever during the delivery. The soft parts were very unyielding, requiring some slight incisions, and the patient was delivered with forceps. There being some atony, hot injections of 1:1000 sublimate solution were given.

During the first days of the puerperium, the patient presented some very peculiar symptoms; general depression, then a comatose state, together with a certain hyperesthesia of the whole body, subnormal temperature, and offensive diarrhea. About the fourth or fifth day these symptoms abated; the patient had some puerperal abscesses for which she continued under treatment for some time at her house. Albumen was present in the urine a considerable time, from the first day on.

The second case was that of an eclamptic primipara, aged 25; the eclampsia on the whole ran a benign course; the patient was delivered with forceps without material difficulty. After delivery, there was some degree of uterine atony, for which was given a hot irrigation with about three litres of a 1:1000 sublimate solution. The hemorrhage ceased and the patient soon recovered consciousness. On the days succeeding delivery, there appeared, besides general depression, great hyperesthesia, subnormal temperature, profuse fetid diarrhea. The patient became somewhat somnolent, and death ensued on the fourth day. The autopsy again showed the most extraordinary alterations in the intestinal mucosa, which was enormously swollen and partly gangrenous as far as the transition into the ileum, but especially so in the rectum. The kidneys showed marked changes, although calcareous deposits, as in Stadtfeldt's case, could not be found.

If we ask ourselves the question why, with conditions otherwise nearly alike, in the one case the intoxication was overcome, and not in the other, it seems that in the latter case the pre-existing kidney disease had materially affected the condition for the worse. Owing to the intense influence on the kidneys in poisoning by bichloride of mercury, it appears to be exceedingly dangerous to employ corrosive sublimate in patients whose kidneys are not absolutely sound. At any rate, in Schroeder's clinic the use of the sublimate has been strictly eschewed in cases of such complication.

These cases were also of great value in determining the clinical symptoms; aside from great general prostration, reduction of the cutaneous temperature, hyperesthesia, general restlessness, and profuse, partly bloody diarrhea. Certainly these observations admonish us to be doubly careful."

Choice of Teeth for Extraction for the Purpose of Uniformity.—The physician is not often consulted relative to the best course to adopt in regard to the teeth, but he cannot afford to be ignorant of the peculiarities of this important part of the anatomy. When the teeth are too much crowded in the jaw it is frequently desirable for esthetic and hygienic purposes to draw some of them, and the question which to draw when there is a choice has, it appears, been a constant source of discussion among dentists. Dr. Perry, in order to throw some light on the subject, has tabulated 7,277 extractions for disease, and finds that 2,823 of these were first

permanent molars, 737 were first bicuspids, and 944 were second bicuspids. As the statistics show show that more first molars are lost than bicuspids we should, as a general rule, take out the first molar where the choice must be, as is usually the case, between this and a bicuspid.

Contributions to Local Journals.—Under the heading of "The Need of Western Journalism" the Medical Index in an editorial expresses our views on this subject so accurately that we incorporate it below in its entirety. There is a certain class of contributors to Medical Journals who seem to feel it a special privilege to find a channel for the expression of thought in the Eastern journals. They do not seem to realize with sufficient force that each in selecting his seat of practice owes to that center of civilization his own influence for its general development. They seem to forget that the practitioners who want to refer a difficult and obscure case to some one else for further investigation will be induced to select such consultants from the source whence comes their general literature. The result is that a number of cases of more than usual interest,which could receive just as efficient treatment in the West, pass through the western cities and contribute both their interesting cases and the associated wealth to the older centres in the East. But, as the Medical Index puts it:

"The West is no longer a child. It must have its own literature, its own forms and channels of expression. We can scarcely expect the same kind of man to grow on the granite hills and on the prairies any more than we can expect the same kind of flowers and the same kind of corn. It is not alone an increase in numbers that has been produced but a variation in type. It is not a very much better or worse man, but it is a different man, and this different man has different ways of thinking, and must have his different ways of expression. Be the thoughts profound or trivial, they are his, and he must tell them in his own way. This is the significance of Western journalism, and of Western literature whatever there is of it.

So the practice of medicine, depending as it does to a great extent upon the personality of the physician, must have its shades of difference in different parts of the country, and these shades of difference can be best represented by local medical journals. It is scarcely to be expected that these local medical journals will be equal in all respects to those published in the larger medical centres. Until Western cities can afford physiological laboratories, and can rob the general profession by endowing free clinics, we must suppose that the East will continue to be a medical Mecca, inviting its annual pilgrimages. This of course has its effect upon Eastern journals, giving them a greater amount of material to build from, and from the greater number of students giving them a greater hold upon the profession at large. But yet with all their merits, they do not embody all the exellencies of the profession, any more than the clinic and the laboratory embody all its resources. In the clinic the sick man is treated as a curious kind of machine to be repaired. You take him apart or put him together as the case requires and he runs or stands still; but with it all you have lost the effect of the physician's personality, which in ordinary practice is half the cure. It is simply the impersonality of medicine as a science. So Eastern journalism, taken as a reflection of the clinics, must be to a certain extent impersonal. In that our West, the West of the Missouri Valley, can have very little voice, for we have no laboratories and very few clinics. But the medical art is what especially interests us, and here we find that Eastern journals are, and from the necessities of the case must remain, the reflections of Eastern thought. What we want are journals that will reflect our Western thought just as our rivers reflect the color of the flowers and the tall green grasses of our Western prairies. Until this is accomplished, Western medical science must grow upon the crumbs cast to us from Eastern tables.

To accomplish this requires something more than individual effort. The profession at large must come to its aid. While the physician should be broad minded enough to recognize the excellencies of everything, yet we must be discriminating enough to know that his own personal interest is bound up with his locality, and his own plane of thought in every event is reflected in its intellectual tone. Why do we have poor articles in Western journals? Simply because there are not enough good men who write for them. It is not because there are not enough good men in the profession. One or two men cannot make a journal what it should be. It requires the support and sympathy of the profession as a whole."

Which Was the Greater "Jackass."—Under the title of "Carlyle and His Dyspepsia," the Columbus Medical Journal tells us:

"In his 'Reminiscences' Carlyle tells us how he once rode sixty miles to Edinburgh "to consult a doctor, having at last reduced my complexities to a single question. Is this disease curable by medicine? or is it chronic, incurable except by regimen; if even so? This question I earnestly put; got response, 'It is all tobacco, sir; give up tobacco.' Gave it instantly and strictly up. Found, after long months, that I might as well have ridden sixty miles in the opposite direction, and poured my sorrows into the long hairy ear of the first jackass I came upon, as into this medical man's, whose name I will not mention."

Who was the greater jackass? Certainly Carlyle. To think that a man of supposed learning and reflection could think it possible to settle a question of dyspepsia with a single response. Certainly the physician was wise in suggesting one thing at a time, and this item will contribute with many others to show up an over-estimated man.

Skin Grafting is an operation which we are all called upon to perform occasionally. Dr. Wilson, of Louisville, is said to have used in place of the skin the inner membrane of the hen's egg; and Dr. R. C. Lucas in the Lancet, thus expresses himself in favor of skin from the prepuce:

"The surplus skin of the prepuce, from its suppleness, thinness, and vascularity, appears to be peculiarly adapted for transplantation, so that I have found grafts from this source adhere when those of other parts have failed. And again, wounds whose granulations appeared coarse and illy adapted for grafting have accepted prepuce grafts when I little anticipated a favorable result. About three years ago a case of acute cellullitis of the lower extremity, which came under my care, resulted in extensive loss of skin both in the thigh and leg. In this case when the granulations had assumed a healthy appearance, grafts from various sources were placed upon the wound, and I was then favorably impressed with the superiority of the prepuce skin. The coarse skin with dry cuticle upon it, which may be obtained from amputated fingers, is far less satisfactory, adhering with less certainty and growing with less rapidity. The time which may be allowed to elapse between the removal of the skin and its application in the form of small grafts to a wound I have not accurately determined, but it is probable it may be extended till signs of putrefaction begin to appear. I have not hurried to place those pieces of skinon the wound, and from half an hour to an hour may sometimes have passed before they were made use of. In no case have I placed them in hot water or made any provision for maintaining them at the temperature of the body. If the recipient for the grafts lived at a distance from the person yielding the skin, I believe the skin might be conveyed in a small glass bottle or wrapped in gutta-percha without loss of vitality for some hours."

—A drachm of balsam of copaiba to an ounce of white vaseline makes an oitment popular with New York ophthalmologists in treating chronic conjunctivitis.

A Case of Farcy in Man.—M. Bucquoy has communicated to the Académie de Médecine a case of acute farcy in a coachman, which was treated in his wards at the end of last year. At the necropsy, there were no lesions observed of a special character. Inoculation made on a donkey with pus taken from an articulation of the patient provoked all the symptoms of glanders. Two incisions were made, one on the animal's nasal mucous membrane, the other on the thigh, and death ensued six days afterwards. These inoculations were made on the day that the patient died. The organic fluids collected during the life of the patient and used for artificial cultivations did not produce typical baccilli described by MM. Capitan and Charrin. The necropsy of the donkey revealed all the characteristic lesions of glanders. Purulent mucus discharged from the animal's nostrils, and used for inoculating a guinea-pig, provoked acute farcy, and resulted in death after a few days. M. Leblanc instituted an inquiry in the stables where the patient had lived, and it was discovered that a horse suffering from glanders had been hidden there.

Death of a Physician from Diphtheria.—We learn of the death of Dr. Samuel Rabbeth, a medical officer of one of the London Hospitals, from diphtheria. He performed tracheotomy in a case of diphtheritic croup and in order to clear the trachea sucked the tube. Ten days after Mr. Rabbeth died of diphtheria of the fauces; false membranes also formed in the trachea, and extended into the bronchi. He was a victim of devotion to his calling and a splendid eulogy might be pronounced, setting forth his self-sacrifice and heroism. But all this does not alter the fact, that lives are thrown away in this wise; in all cases, we dare say such a proceeding is as useless for the benefit of the patient, as it is dangerous to the operator. There where the emergencies of the case demand such action, all honor to the spirit that prompts a man to offer, at his own peril, this meagre possibility. But in a hospital, or in cases of operation in practice after previous and timely preparation, the occurrence of obstructions in the trachea should be duly provided for. We learn that no suitable apparatus for clearing the tracheal tube in these cases has been devised. It is said that no India-rubber ball attached to suitable apparatus can be made to exert a sufficient suction to withdraw thick and glutinous matter. Be that as it may, in the employment of some such device we would get all that can be accomplished by suction with the mouth, which at best must be conceded to avail little. A London instrument-maker has latterly made experiments with a rather small ear-syringe and states, that as far as experiment could go short of an actual case of tracheotomy, the apparatus works well. The syringe has the usual conical nozzle with the hole enlarged. Four different sized pieces of India-rubber tube, adapted to any trachea, slip on to the conical nozzle. At the ends these tubes are perforated as an ordinary drainage tube. The mechanism is certainly simple enough and deserves a trial.

Moderate Drinking.—The British Medical Journal writes as follows: The Bishop of Exeter, speaking as chairman of a meeting of the National Temperance League, held the other day in Exeter Hall, for the purpose of discussing the pros and cons of moderate drinking, remarked that "he found that, in nine cases out of ten, in his own diocese, when people had been induced to exercise self-control in the use of alcoholic drinks they ultimately became total abstainers." This is precisely how we should like to see the argument left. Let moderation be inculcated—wise, and therefore extreme moderation in the use of stimulants of all sorts and kinds, whether intoxicating or non-intoxicating, for there are as many of one class as of the other—and then let matters take their natural course. A temperate and strictly moderate—in fact, a self-controlled—people may be trusted to work out the question of prudence in the way best suited to its needs. Dr. Alfred Carpenter, speaking at the same meeting

and in the same sensible manner, gave, as the result of his experience and observation, that abstainers were less affected with disease than even moderate drinkers. Dr. Richardson, who, of course, stands committed to the the "tectotal" movement in its most advanced form, spoke, as he is wont to speak, with the fervor of a convinced abstainer. "In medio tutissimus"; wine was evidently given to make glad the heart of man, and if it had not been properly fermented wine, it would not have gladdened him; but nothing can atone for the offence, or extenuate the folly of excess. We declare for extreme moderation, in the interest of a sound mind and healthy body; and we venture to predict that there is the ultimate form in which the crusade against intoxicants will be cast.

Ovariotomy.—Mr. Knowsley Thornton lost but three of his last one hundred ovariotomies. He is a believer in antiseptics and practises it. In one of the fatal cases there was complication by malignant disease of the stomach, liver and rectum. The second death was from hemorrhage due to the slipping of a ligature. The third case also died of hemorrhage; after the tumor had been enucleated with great difficulty, profuse general oozing occurred from the pelvic tissues and it was impossible to check it.

CONTRIBUTIONS.

MURIATE OF COCAINE AS A LOCAL ANESTHETIC TO THE EYE.

BY W. EDWIN GROUND, M. D.

Professor of Diseases of the Eye Ear and Nose in the Toledo Medical College, (Toledo, Ohio).

Immediately upon reading the report of the Heidelberg Ophthalmological Congress by Dr. H. D. Noyes in the Medical Record of October 11, 1884, in which was described the action of this drug as a local corneal anesthetic, I set about experimenting with it. The fact, that Prof. Noyes had so highly indorsed it, was sufficient evidence for me to be very bold and decisive in its use. The solution I used was of ten grains to one ounce, a two per cent solution. The first case was an operation for pterygium, a sailor, aged forty years. The hypertrophied conjunctiva extended to the centre of the pupil. Three or four drops of the above solution were applied at intervals of five minutes during the operation on both eyes. There was positively no pain. A feeling of extension was noticed when the speculum was introduced. The cutting and stitching was done with absolutely no pain or inconvenience. Contrary to previous published statements the drug had a marked mydriatic effect in this case. In a half or three quarters of an hour the sensibility of the cornea had fully returned. The next case in which I tried the muriate of cocaine as an anesthetic was in a child, aged nine years, for operating on convergent squint. In this case the child complained of pain, but I think it was only imaginary, induced by fright at the sight of the instruments. I successfully performed the operation, however, with very little trouble. Slight mydriasis occurred in this case also. I used the same solution in two cases of phlyctenular keratitis. One case was an adult, aged forty-eight years, with extreme photophobia associated with profuse lachrymation. The application produced instant relief. The second case was of a strumous child, aged thirteen, that was brought to my office suffering from intolerance of light; it could not be persuaded to open the eyes until I closed the shutters and made the office so dark, that I could not see to examine. I admitted just enough light to be able to examine intelligently; then the lids were so screwed up that they had to be opened by force. I applied the two per cent solution of hydrochlorate of cocaine and in five minutes I admitted all the light possible, and the little girl opened her eyes herself. The surprise to the mother was complete, as was my satisfaction at being able to relieve her so promptly. I am sure that any one who treats many cases of this kind knows how to appreciate such a remedy. I could report other cases in the same strain, but this will suffice. I am experimenting systematically, and these results will be more satisfactory to the reader than this hurried communication. This drug certainly promises much and I am sure it will admit of a wide application. The profession will not be slow in appreciation.

—A sum of $200,000 has been left to the University of Berlin by the late Countess Bose, of Cassel, for the benefit of poor medical students.

THOUGHTS ON EVOLUTION.

BY AMOS SAWYER, M. D., HILLSBORO, ILL.

Read before the Mississippi Valley Medical Association.

[CONCLUDED.]

Let us now examine one of the main arguments in support of this theory: 'the survival of the fittest, i. e., the strongest, the best developed. Now man's nervo-muscular power is far inferior to the Orang, Chimpanzee, or Gorilla. His offspring remains in a state of dependence much longer, and requires a greater length of time for the full development of his physical and mental status. Therefore, according to the evolution theory, the ape should have been evolved from man. The evidence as shown by the fossil remains of animals, proves beyond the shadow of a doubt that, physically, there has been a retrogressive evolution. The prolonged state of dependence in the human offspring, shows the wisdom of a Creator and not evolution from an ape, as it affords opportunity for mental culture and moral training, or a pristine decoration of the Temple of the Holy Ghost, for it is upon this oral transmission to the rising generation that their capacity for intellectual progress, as well as the safety of society, depends. The most learned man in the world may give his child access to all the wealth of knowledge in his possession, but the scintillations emitted from his mind will be that of an Alaska diamond; for genius is not evolved, being a gift of God; and consequently, rolling up from the rubbish by which it has been surrounded, it attracts the attention of some lapidary of science, and is cut, polished and pushed forth into the world to dazzle its inhabitants by its brilliancy.

Genius was defined by Agassiz to be "a capacity for an infinity of work." Some one else says: "It is the capability of looking into the eye of a needle an hour without winking." Genius is conception, extramental or psychical exosmose, as illustrated by Copernicus Newton, Franklin, Raphael, Michael Angelo, Mozart, and a host of others. They conceived in their minds and brought forth living truths to be appreciated, imitated and utilized by their fellow men. From genius comes accomplishment which is an intromission or mental endosmose, for one may be taught to execute the most difficult piece of music, solve the most abstruse problem, or perform the most difficult surgical operation, yet lack the capacity to originate either. Therefore, accomplishments may be acquired by all whose natural inclination leads them in that direction, from genius, which is innate, being the gift of God. Darwin is honest enough to admit that he cannot explain the evolution of the intellectual faculties, as developed in man, and the attempts of a few of his followers to accomplish what he left undone in this direction has simply demonstrated that the mental strain was too great; for they broke down prematurely without adding anything new to this department. True, Haeckel claims to have discovered the "mind cell" which he says possesses the capacity "to feel, to will, to think" (vol. 1, pp. 127-8-9). "Our whole intellectual life is but the sum of the results of the activity of all such mind cells." But he neglects to inform us how he demonstrated this to be true, and as his premises may be false his deductions would be also. Certain it is, that the faculty of memory has been located in the fissure of Sylvius near the Island of Reil, or at least the mind receives impressions of subjects and objects at this point and can recall them at the will of something superior to, and that controls matter. And although he says that these mind cells are diffused throughout the brain of the higher orders of the mammals they certainly must concentrate at this point. All our recent discoveries with reference to cerebration, one and all, point to something, not matter, controlling that force by which mind with mind doth blend and brighten.

I will now introduce some evidence to support my reasoning from comparative physiology, and would direct particular attention to the following description: In man and the tailless apes there are seven cervical vertebræ; of the dorsal, man and the orang have 12, the gibbon and gorilla 13, chimpanzee 14; of the lumbar, man, orang and gibbon each 5, gorilla and chimpanzee each 4; sacral, man has 5, all the others each 4; coccyx, man has 4, orang 5, gibbon 3, gorilla and chimpanzee each 5. This shows quite a fluctuation in number, and often in the wrong direction, for we find that man has one more lumbar-vertebra than either one of the species that are supposed to approach him most closely, and one more sacral bone than the apes. The extensor muscle of the index finger is found in man alone. Now if there was only a rudiment of these bones or muscles in the ape, there might be some grounds for the conclusion that they had become developed as a necessity as their use arose, though how they could be thus developed is a mystery, since we find it so difficult to restore the atrophied muscle, contracted tendon or lost osseous matter; but as there is not, then, admitting the evolution theory to be true, these extras for man must have been created, and this would necessitate a Creator, call it by whatever name you please. In the mammalia, the plane of the condyles are oblique, showing that the erect posture is not natural to them. The position of the face immediately beneath the brain is characteristic of man alone. Man is the only one of the mammalia who can stand on one leg. The skull of man is smooth, in the ape it has ridges for the attachment of muscles, which are very strong. The fusion of the inter-maxillary with the superior bone, at an early age of fetal life, characterizes the human cranium from that of the ape where they remain separate to a much longer period. The flexor longus hallucis muscle is inserted into the great toe of man, on which the weight of the body can be supported, whilst in the ape it is inserted to the three middle toes. In man there is an absence of the laryngeal pouches found in apes. Another remarkable fact, unexplained by the erect posture of man, is his adaptation to the varieties of his surroundings. He can endure the vicissitudes of climate; live on an exclusive vegetable, and almost exclusive animal diet. The chimpanzee and gorilla are restricted to the hottest parts of Africa, the orang to the tropical portion of the Indian Archipelago. They cannot live in temperate climates except by the aid of artificial heat, and even then they do not long survive. Their diet is exclusively vegetable. Looking at the subject from this direction I do not see how the necessary transformations could have been effected by any known physiological law; or the theories of evolution, descent or selection sustained.

To prove our common origin mention is frequently made of the fact that the human embryo in the third or fourth week of its evolution exactly corresponds to the undeveloped embryo-form presented by the ape, dog, rabbit, horse, ox, and other mammals at the same stage of their ontogeny. But, although a close examination will disclose a marked difference, even in the plates presented by Haeckel, still admitting his declaration (Vol. i., p. 18) to be true, it adds nothing in support of the theory, for the framework in all the mammals being somewhat similar in its construction, there would in the inception of its creation, in appearance, necessarily be more of agreement than difference; yet the fact that in its imago stage, so to speak, it clearly shows which was man and which was ape, horse, dog etc., proves beyond cavil that they were not the same, but distinct patterns of their own species. As well argue that because the fruit and seed of the mulberry resemble the blackberry so closely therefore they must have a common origin, and that the tree sprung from the vine.

The improvement we witness in the different breeds of domestic animals is accomplished by making a judicious selection of those possessing in a greater degree than others assimilative powers which enables them to increase the osseous, and muscular systems, or deposit a greater amount of the carbo-hydrates with a given quantity of food, and propagate the species from them. But this improvement lasts only so long as the same care and attention is bestowed. Simply this and nothing more can be accomplished by mortal man. It seems, therefore, to me more in accordance with common sense, reason and the evidence, to believe that all the species of animals were created perfect with mechanisms suited to the sphere and object they were intended to fill, than that it was left to nature to evolve as occasion required, with now and then assistance rendered in the form of a creative act, (miracle.)

If man was evolved from an ape a necessity for making use of his body must have existed at that time and that necessity could only have been God's lack of power or wisdom to create a suitable being for the object He had in view—the gift of a soul, and the consequent sequence, language. But the admission that He did this, [and soul or language could not have been formed by spontaneous generation, or evolved from an animal never in the possession of them,] refutes this idea, for it was, as we shall see, quite as easy, and much more appropriate, to create an undefiled image of Himself for the purpose, than to make use of an ape. Therefore a necessity for transforming apes into men is not apparent, and must be clearly shown before, in the face of such adverse evidence, the attempt is made to prove that it was an actual occurrence. We can never know that what they claim to be, is true; for there is no way, as the law of evolution is not now in force, to make us conscious of it. As we find that it is the law of nature that animals and plants are of the same kind with their parents and the fossil remains of extinct animals discovered prove nothing to the contrary, as well declare that the sheep sprung from the goat, the rat from the mouse, the boa-constrictor from the cobra, or vice versa, as man from the monkey. If we will stop but a single moment to consider what a stupendous undertaking it would be to effect the anatomical and physiological changes necessary for the transformation of apes into men, we will see the absurdity of such reasoning, for you must rasp down the ridges and sand-paper to produce a smooth cranium, and then enlarge it externally and internally; fill up with osseous matter the foramen magnum in the middle of the posterior third, and cut a new one just behind the center of the base, shorten the arms, lengthen the legs, arch the feet, enlarge the pelvis, add a lumbar and sacral vertebra, alter the whole angle of the vertebral column, shorten the jaws; in fact there is not a muscle or bone in the whole structure, but some change in its form, origin, or insertion is necessary before evolution is complete, not to mention soul and language, which must have been created! Surely such wonderful changes could not be accomplished in a single leap, but must have been gradually graded up to man, and if this was the case, where are the intermediate species? Haeckel answers, "It is evident that no single one of the existing man-like apes is among the direct ancestors, but they are the scattered remnant of an old catarhine branch once numerous from which the human race has developed as a special branch in a special direction" (vol ii, pp. 181, 2 & 3). In other words they are lost. In this respect they resemble their advocates, for they inform us that the "fittest survive," and as each new creation, as it approached man must, according to their theory, have been superior to their predecessors, living specimens should be found. But inasmuch as they have failed to produce the fossil remains of one of these wonderful animals, it is asking entirely too much when they demand that we shall admit their existence from analogy.

We can consistently refuse to believe, because the evidence produced is not sufficiently clear to warrant their own members in uniting upon it; but, on the contrary, there are three divisions, each positive that they are right. Therefore the only way remaining is to convince us, and this they must do by reasoning; consequently the first thing to be done is to show the necessity for the Creator to adopt this plan; or, ignoring such a being, how "external circumstances or spontaneous generation, by a nitrogenous carbon compound, acting on an atom of original slime," could induce the creation of the different genera of animals and plants, and also why this law does not exist at the present time? The answer, I imagine, would be like that in reply to "What causes ague?" "Malaria." "What's malaria?" "You know as well as I do." At all events they cannot give a satisfactory answer, and it remains as at first, a very pretty theory, or chain of thought, mended where the links are broken, with such ingenuity that, to the careless observer, the imperfections would never be discovered.

Vegetable life, in all its various forms, must have been created; to view it in any other light would be contrary to observation and reason, as evidenced by the fact that it is possible to kill out any or all the different varieties of trees and plants by destroying the growth and seed. If the trichina, infusorium or in fact any species of animal life from the lowest to the highest could all be destroyed, there would be no more. Disease, like syphilis, small-pox, cholera, etc., once stamped out would never reappear. That this is universally conceded, legislative enactments having in view the extinction of contagious diseases and obnoxious plants, conclusively proves. Therefore it is logical to conclude that they must have been created, and if this law applies to a few why not (particularly in the absence of proof to the con-

trary)to life in all its various forms and conditions. It is passing strange, in this wrestle, on the "catch as catch can" plan, between nature and organic life, as represented by the evolution theory, that we should find, as we do, every part adapted to the work it has to perform: the elephant's trunk, an ostrichs stomach,a shark's mouth, the lance of the mosquito. or the insect that builds its coral house far below the surface of the deep blue sea. No improvement can be suggested, all is perfection. Even when we meet with an exception to one of nature's laws, as in the density of water, we see in it the evidence which points, not to chance, but to an omniscient and wise Creator; for organic life depends upon this deviation. The fact that liquid bismuth also expands in evolving without our being able to determine the necessity, does not invalidate the fact that upon water possessing the same property depends the existence of organic life. At all events if this deviation is due to chance, it is a very fortunate thing that it chanced that way. And as the wisdom of the measure in the one case must be clear to all, we are warranted in assuming that equally as good a cause exists for the other. Finally, if the evidence adduced to sustain the evolution theory, has been demonstrated to be irrefutably true, then all naturalists and scientific men should agree upon it. This we have the right to demand. But the fact that there are many who refuse to believe, a hesitancy on the part of others, with advocates for new theories, which they contend are more rational and reasonable than the others, proves to the Christian world that, up to the present time, the evidence brought forward to sustain them is not sufficient for conviction among their own rank and file. When therefore, the men on the top of the evolution ladder cannot agree in the description of the scenes which they by their wonderful presbyopic vision claim to so plainly see, has taken place, how can they expect to make the mass on the ground believe that they see anything. It is like finding water in a desert; when you reach the spot where under an optical delusion you could swear that you saw the fluid, it is not there, but just the same distance ahead, and you follow on until lost.

In conclusion, I will present the premises of both sides, and deductions drawn from them. "The evolutionist believed that the organic world sprung from a germ or atom of original slime. (inorganic matter); that this mysterious life which dwells in all was spontaneously generated by a "nitrogenous carbon compound." (Query:—How did this nitrogenous compound originate? What are its ultimate elements? Whence came the first molecule of carbon and nitrogen?) and that the lowest form of life was vegetable, which in turn gave birth to the invertebrate animals; these to reptiles; reptiles to birds; birds to quadrupeds; quadrupeds to mammals; man being chief of all (but why not one step further, man to God?) when the Christian evolutionist believes God gave him an immortal soul. And this is called, "The reigning philosophy for all time." Man is the acme of vegetable life. And right here it would seem pertinent to ask why, in accounting for the drift, we find that the "reigning philosophy" of the geologist has changed three times? And this is not an exception, but the rule. Therefore, gentlemen of science, how are we to know that you will not in this case, as in the past, be ready to drop it for the first new theory invented by some votary, whose aspiration for fame overcomes his normal cerebration. That this theory is fashionable,there can be no doubt; and the axiom that, "A man had as well be out of the world as out of the fashion" would seem as applicable to science as to anything else.

We find the Christian's belief in the existence of a Supreme Being, as the Creator of the universe, apart from Biblical history, is founded upon evidence that up to the present time has proved incontrovertible. For it is impossible to explain how, and therefore unreasonable to require us to believe,that "external circumstances" should from "an atom of original slime" with the assistance of a "nitrogenous carbon compound" have formed male and female of the different species of animals, the one to contain a receptacle for a microscopic atom of the other, and from this minute particle form a little image of its species, with mechanism so complicated that as yet the human intellect has been foiled in its attempt to comprehend. How and why form one species of locust so that it effects its alternation of generation every twelve months, and another species should require seventeen years? Why two species of wasps, whose chief difference is in color, the one should construct its nest of mud, and the other of woody-fibre? Why the atoms should be so grouped that from the same quantity of the same elements (C6, H5, O5), there should be formed such different bodies as sugar, starch and wood? Or, how the rotation of the earth should be just sufficient to cause the water of the oceans to remain on that vast slope that rises from the poles to the equator to a height of thirteen miles, and thus prevent it from seeking its level and making this earth a perfect sphere?

That these same external circumstances should, so form the sturdy oak,which rears its broad head toward heavens blue dome, that its pollen falling upon the flowers of the different varieties of the same family, or those of others distinct from it, by which it is surrounded, provide that it should not fecundate them until at last all the different genera were merged into one? Or, making an exception to the law of density in water, knowing that a law cannot change itself, the exception must be caused by that upon which it depends, and gives evidence of the thought, knowledge and wisdom of an intelligent being, for without it this earth would be a globe of ice. As this peculiar "combination of circumstances" must in the beginning have been in universal operation, how does it happen that in the origin of species, that in America the rat, house mouse, violet-moth and a host of other imported pests were not evolved? What did the germ that evolved the turkey in America make in Europe? And the germ of the horse in Europe make in America? And so on through the organic list we find peculiarities to each country. Can these things be due to chance or creative wisdom? Which is the most reasonable conclusion? We find that the offspring, conforming the law of nature, is of the same kind with the parent; or that animals and plants are preceded by similar animals and plants; this we find to have been the case for millions of years, and in, the absence of proof to the contary, conclude that this law must always have been in force; this is an axiom in reasoning and as it is incompatible we exclude the law of evolution as a factor in organic creation. We also see that

force is in the union of opposites; that everything, whether simple or compound, depends for what it is upon that which it is not. Water is the union of oxygen with hydrogen; salts are formed by the combination of acids with bases, and so on. We find that the elements of matter depend one upon another; they are numbered, each one possessing its own shape, size, weight and combination with other elements; therefore, its action is limited and determined, and its existence depends upon the will of its Creator; something not matter, the Self-sustained! the Self-mediated! Almighty God! That the fossil remains of extinct speci s of animals afford no evidence to sustain the evolution theory, is evidenced by the fact that an archæologist can at once determine wheth- the specimen discovered belongs to a mas todon or a mammoth, a megatherium or a miladon. There is no hesitancy because there has been no merging of the species, and there never will be! Does it seem reasonable; is it in accordance with the evidence to believe that God would create this earth and the forces governing it, as well as the worlds by which it is surrounded, that they should work with that undeviating certainty which enables us to foretell for years in advance, where the shadow of a planet will fall, and then only create an atom or a few forms of the lowest order capable of development into other forms as needed? Certainly such an idea must detract from his glory and majesty to a greater degree than that He spoke creation into birth by a simple command, and life in all its various forms and in a manner His wisdom knew to be best. Therefore, just as when we find an arrow-head shaped from flint, we, reasoning from a visible effect to an invisible cause, recognize the work of man's hands, for it gives evidence of design; so and for the same reason, we see in every animate and inanimate object, distinctly or indistinctly, the part that they were designed to fill, for they are all fashioned, like the arrow-head, in a manner peculiar to themselves. Therefore we believe as we exclaim: "Behold the works of the Creator!" for all the evidence points to design and not to chance.

To that class who claim to believe that life originated by spontaneous generation, who recognize design but not a designer, admit creation, but not a Creator, acknowledge the existence of laws but not a law-maker, believe in an initial or beginning force, an effect without a cause, we must leave them to their own reflections, as they cannot be reached by reason, and argument is useless because they lack the foundation to build upon.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

REPORTED FOR THE REVIEW.

Stated Meeting, November 1, 1884.

Dr. Hulbert.—I will report two interesting cases of trichinosis. Lena and Robert Haberland, aged 10 and 8 respectively, were admitted to the Female Hospital, on October 10, 1884, suffering as was supposed with malarial fever. Upon examination nothing special was noticed but fever and anemia with a slight amount of muscular soreness. The appearance of the patients at this time gave evidence of remittent fever, and they were treated accordingly. The treatment moderated the fever but had no other effect. Constipation was marked, necessitating the constant use of laxatives. The temperature in the girl was very irregnlar and varied from normal to 102° and over, in the 24 hours. The boy suffered from fever for only a few days after admission, when it entirely disappeared and he has not had any since and is now convalescing. A few days' observation of these cases convinced us that we had cases of trichinosis to deal with and we felt satisfied that the microscope would verify the diagnosis. The symptoms of general muscular tenderness and fear of movement, in the girl, became extremely severe. Our little patient was in a constant state of suffering, and quiet only when under under the influence of morphia. Every flexor was rigid and contracted; constipation persisted. On the eighth day slight œdema of the right foot and leg was noticed. The foot as far up as the knee joint became cold and cyanosed. This condition persisted for three or four days; then dry gangrene set in involving the sole of the foot, ends of toes, and extending as far up as the malleoli. Forty-eight hours before death our patient gave evidence of pleurisy. She died October 27, 1884, seventeen days after admission and on the twenty-first day of her illness. A post-mortem made a few hours after death, showed that the entire left pleura and a part of the left lung, except in front, were involved in the inflammatory process; the heart normal; the omentum was congested and partly adherent; intestines distended; liver large, pale and friable; spleen and kidneys normal to outward appearances; right leg was œdematous. The muscles presented the same rigidity as during life, and in attempting to extend the arm the biceps parted. The gangrene was confined to the skin tissues, the body of the foot being healthy. No clots or obstructions were found in the veins or arteries. The examination was carried up to the external iliac. Microscopical examination revealed trichina spiralis; no encysted trichinæ were found. In connection with this case, the father called on me, and told me, that his wife, Louisa, died October 6. Our patients came into the hospital on the tenth, four days after the death of the mother. It seems that the mother had been sick only four or five days before her death; and that they have been in this country only about three months. It was the habit of the family to eat raw meats of all kinds, two or three times

a day,both here and in the old country. The mother was a perfectly healthy woman and had no sickness except her last illness. He gave a description of her general muscular tenderness. She had diarrrhea during all of her illness, and the closing scene described by him left no doubt that lung complications existed. She complainly of great shortness of breath and pain in the lung, and was all drawn up before her death.

Dr. Dean.—Where did the gangrene start?

Dr. Hulbert.—The gangrene started first on the plantar surface of the toes; the cyanosis commenced there.

Dr. Dean.—On which side did the child lie?

Dr. Hulbert.—The child lay on her back most of the time; we kept the leg in a pillow, but she was all drawn up, and finally she got on the right side and remained so almost altogether during the last part of her illness. As regards the treatment of these cases I did not know what to do. I gave them quinine when I first saw the cases, under the impression that it was malarial trouble; and, as I said, it had no effect, except that it seemed to reduce the temperature a little. When I made up my mind fully what their conditions were, I simply gave them a good diet; all that they could eat of the best nourishment possible. I also continued giving them morphine.

Dr. Dean.—Was there any œdema of the eyelids?

Dr. Hulbert.—No, sir.

Dr. Pollak.—Where did you find the trichinæ most?

Dr. Hulbert.—We examined the biceps, psoas, and gastrocnemii muscles, and the largest number was found in the gastrocnemii. Dr. Dean had a specimen of the biceps and Dr. Carson,of the Health office, a specimen of the gastrocnemii.

Dr. Dean.—There are two or three points of some interest in these cases. There is, in most cases, œdema of the lower portion of the legs, and gangrene only occurs from decubitus, but it has nothing to do with the presence of trichinæ themselves. There was no œdema of the lids, the doctor says, and that probably occurred before the patient came to the hospital; it would be indicative about the seventh day, because the diagnosis as between that and typhus abdominalis is frequently made out by the appearance of the œdema on the seventh day, the symptoms up to that time being somewhat alike in the two diseases; frequently they are mistaken for one another. Usually the limbs are flexed; they are so kept,because this is the easiest position, just as in peritonitis the limbs are drawn up. But in the most severe cases the sarcous element of the muscles become much changed and the change before death is very much like the rigor mortis after death; the contraction is so strong sometimes that the muscles will be ruptured by attempting to straighten the limb. It is somewhat singular that there was not œdema on both sides. It appears that the child was lying on her back, the knees drawn up. The position would account for gangrene appearing on the bottom of the foot, or right foot, if patient had lain on the right side and for the œdema's being greater in that leg. Incidentally I saw the little fellow a moment or two, and the doctor kindly gave me a specimen from one of the muscles which I found contained trichinæ in the uncncysted state; and in that condition, if this muscle was eaten by other animals,there would not be much likelihood of their being developed. Trichinæ have to live in hosts; they must matures in the muscles of one host, to a certain stage, before they will develop to sexual maturity after they are ingested by another. Wherever they exist as muscular trichinæ they cannot multiply or grow at all. Pork that is more or less infected with trichinæ may be eaten with comparative impunity, until near the time when they have become encysted. In the first place they are not mature as early muscular trichinæ; they have to remain and grow and become encysted, and after they have gone on to this state of development if they be taken into the stomach of a proper animal they develop and multiply.

Dr. Dudley.—What would be the treatment if the diagnosis were made sufficiently early?

Dr. Dean.—Although there have been a great many things tried in the past years, no efficient vermifuge, vermicide or remedy is known. We all believe that purgatives should be given, when the trichinæ are first born, as we may say, when they commence traveling or migrating and diarrhea occurs; butthere is some doubt as to whether this line of treatment is not objectionable on account of the irritation it causes to the intestinal canal, and it is said not to have answered expectations. Still it seems reasonable to believe that purgatives given at this time must necessarily help in carrying off a great many of them. I would still give physic in these cases The remedy used by Dr.Hulbert, as by others, I think probably I was the first to mention; that is glycerine as a parasiticide. I related in this Society 16 or 17 years ago how I discovered the fact—I don't think it was mentioned in any of the books or literature then.

I discovered it in a very simple way, too. In examining the acarus folliculorum I placed the worms in oil so as to see them move about and then used glycerine to preserve them and I noticed I lost the acari. I made up my mind that the next time I would watch the acari while I put the glycerine on. I did so, and saw them shrink and dry up till finally the transparent skins could scarcely be seen. Remembering the property of glycerine that it is hygroscopic and extracts water from the tissues, it occurred to me that glycerine would be a good remedy to use as something more than a viscid vehicle in cases of acne and as a vermicide, etc. I have used it quite largely as a vermicide since that time. If used outside the body with 1 to 3 parts of water, it is said it will only shrink the trichinæ in the course of a quarter of an hour. But it doesn't seem that glycerine can, with safety, be given in a sufficiently large amount and be taken into the stomach and alimentary canal and into the small intestines to make it an absolutely efficient vermicide in these cases. I think our known vermicides cannot be safely used in sufficiently large quantities. I might mention that it is a disputed point now as to how much this migration of the trichinæ is active, a traveling to the voluntary muscles, and as to how much it is passive, the worms being merely carried through the circulatory system. They have been found in the lymphatics by Virchow and some others, and I think the general belief now is that they go in both ways: actively, and are carried in the blood also. The doctor spoke of the yellowness of the liver; fatty degeneration of the liver is a very common occurrence, but it is usually somewhat later than this stage. Another point that occurs to me now of interest is that children are much more likely to recover than adults and much less liable to be severely infected. And it was believed, at least some years ago, I have seen nothing of late years upon the subject in regard to a different opinion being held now—that it was because the digestion of muscle and such food in children is very much poorer and that a large number of the worms pass through the alimentary canal with undigested meat, the capsules not even being dissolved by the gastric juice. Another point occurs to me as regards the method of cure. The earlier stage seems the most favorable; vomiting occurs very soon after the meat is ingested; and I don't know whether I have read it or not, but I have an idea that there is a poisonous element from the worm, in and around the capsules, that causes this nausea and vomiting when the encysted worms are first taken into the stomach, and that it is this that causes this nausea even before the worms are out of the capsules; they are out in about two and one-half days; they do not remain in the capsules longer than that. This of course again is governed a little by circumstances and depends materially on the maturity of the worm. At any rate, it seems that the most favorable treatment would be to give emetics at this stage, and and endeavor to bring up the meat itself. Of course if we see the case when the symptoms are first presented and a diagnosis is then made, emetics can be given and the contents of the stomach might have been pumped out The trichinæ attack only the voluntary muscles; they are never found in the heart or uterus. Cases of abortion occur very frequently but they are not from the direct attack of the worm, but simply because the mother's powers are less. The fetus is not infected. The patient is generally anemic and dropsical or edematous. It was formerly believed, and the position seemed to hold good, that hogs were infected with trichinæ mainly from rats; but now we think the reverse, and it is supposed that rats receive the trichinæ from swine Wherever swine are found rats are found, and whenever we find trichinosed swine, the rats are infected with trichinæ. The rats, however, are undoubtedly a great carrier of trichina. Any one who has been around a slaughter-house has found dead rats about the cattle-pen, but none in the hog-pen, the swine having devoured the rats.

Dr. Pollack.—Trichinæ are sometimes also found in beef, are they not?

Dr. Dean.—Yes, sir; they may be found in beef sometimes; for instance, around a butcher establishment the contents of the intestine or the intestines themselves are not only thrown out, where swine are allowed to eat them, and drag them around the field, and over the grass, but dung is removed to manure grass-lands, and some of the trichinæ may be left, and then, under favorable circumstances, cattle may receive the worms. They are sometimes found in the ruminants, but they are mostly found in the carnivora and some rodents.

Dr. Meisenbach.—The cases related by Dr. Hulbert recall a case I saw at the City Hospital in 1876. The patient was a middle aged man who came into the hospital complaining of very severe chest pains and hehad severe dyspnea and high temperature. The temperature was 104° if my recollection serves me right; there was at no time during the course of the disease temperature ranging lower than 104°. I thought it was typhoid fever, but was not sure. I could not explain

the high temperature. I gave the man quinine and morphine, also hypodermic injections of morphia. He ultimately died. On making a post-mortem examination I and several other physicians found nothing discernible about the organs to account for his death. The cadaver went to the dissecting-room, and then Dr. Hodgen,in making a demonstration to the students, noticed a queer look about the peroneal muscle, and, being interested by the looks of the muscle, he took the specimen and found on examination that it contained trichinæ. Of course then the whole train of symptoms in the case were very clear to my mind. I relate this case for the reason that I really believe that many cases of trichinosis occur and the real cause of the trouble is never discerned. The high temperature is attributed to typhoid or some other relative condition, and the deaths are attributed to some other disease.

Dr. Dean.—Which side of the thoracic cavity was affected?

Dr. Meisenbach.—The left side.

Dr. Dean.—Death most usually occurs from difficult breathing, because of the paralysis of the muscles of respiration, and the pneumonia or pleurisy is usually hypostatic, and is most likely to occur on the side on which the patient lies. Another question of some interest is where to look for these flesh worms, in a case where it is difficult to diagnose the case. They are often difficult to discover. The extremities are not nearly so well filled, and they work their way forwards in most animals in preference to backwards. And another feature, too, with reference to this rupture of the biceps near the tendon; these flesh-worms travel inside the muscles longitudinally, and as the muscles become smaller they become concentrated and thicker as they are hemmed in by the fibrous tissues. They go into primitive bundles and destroy the sarcous elements. The sarcolemma is diminished in calibre at each side and finally unites. And, another point, also of interest, is that we have to be careful not to overlook in the treatment of these cases that the symptoms might hardly correspond to the stage of development at which we find the trichinæ. If a man is in the habit of eating raw flesh he may often be affected to a slight degree only; he may take into his system trichinæ at a great many different times in small numbers, eating say a limited number each year; and sometimes he may take enough to produce marked symptoms or death; so that in examining a portion of the muscle in such a case we may find these worms in quite different stages of development. This often puzzles some in making examinations and is an interesting feature. I think the symptoms of our patient at the hospital could not have been produced by the encapsulated trichinæ discovered by the naked eye by Dr. Hodgen.

Dr. E. Borck.—In connection with the cases spoken of by these gentlemen, I will relate an interesting case of trichinosis that happened to me 10 or 11 years ago. A whole family consisting of seven persons, a father, mother and five children, were affected with this disease. They were sick five or six days before I was called to see them. I found them all in bed, with severe pain and high temperature; with arms and legs drawn up. Upon inquiry I found that the man had somewhere or other found a dead hog and took it home and cleaned it and prepared it and made his family eat of it. I made a diagnosis, and took a little instrument with a hook on it like a fish hook and harpooned the biceps muscle and took off a little piece of the muscle and put it under a microscope, and found trichinæ in it, so that my diagnosis was verified. I do not think there is any difficulty in making a diagnosis in these cases, especially if you harpoon the patient and take out a little piece of muscle. An interesting point as regards the treatment of these cases was this: I used nothing but turpentine and chloroform. I think I gave it in equal parts. I don't remember exactly, but all these patients recovered. I gave them good nourishment. The mother was pregnant and she aborted in the seventh month. And an interesting point would have been to have examined the child, whether it had any trichinæ; but it was impossible to get their consent to the examination. Previously I had treated three or four cases in the same manner with chloroform and turpentine, and every case recovered.

Dr. Dean.—I have long been a believer that many diseases and epidemics that we have looked upon as mysterious, are caused by parasites, larger or smaller. The idea is too common that either all patients must die that have trichinosis, or the counter one, that there is no danger at all in the disease; both notions are wrong. If the infection as we call it is moderate, that is, if the invasion is moderate, the patient may recover without treatment; whereas, if there is a very marked invasion there is very apt to be a disastrous result. If we recollect that the females preponderate and that each female worm will produce in the course of her life-time, a week or two, ten to fifteen thousand young, as has been established by Leuckart and others, or that, after making allowance for all the worms

that may be carried off and supposing that half are males, the offspring are three thousand to each trichina ingested, we cannot expect a very encouraging result, if a patient eat a pound or half a pound of raw flesh of which we cannot take a piece the size of a pin's head and not find from three to ten of these worms. The infection must be very great and the likelihood must be very great that the patient will die, or the sequelæ will be very grave even with the best of treatment.

Dr. Hulbert.—Dr. Dean has spoken of a possible explanation of the gangrene, the decubitus. I do not know whether the decubitus caused the gangrene in this case or not; but cyanosis appeared before there was any evidence of gangrene. The limb was elevated and put in the best possible position to facilitate circulation; there were straps placed upon the knee joint, a bandage being tied around the leg and the leg supported. I am satisfied that the trouble was not caused by pressure of the bandage. It was only a small place simply cutaneous, rather the depth of the epithelial structure; but the gangrene started after the limb was put in this position. I would like an explanation of the gangrene if possible. I cannot account for it. It hardly looks reasonable to suppose that decubitus should account for it?

Dr. Dean.—It is a fact that decubitus does occur very frequently and that gangrene is not a part of the general history of these cases; the gangrene is not a part except secondarily.

Dr. Hughes.—I would like to ask Dr. Dean if he ever made any experiment with chloral and the use of chloroform in these trichinosed patients?

Dr. Dean.—No, I never did.

Dr. Hughes.—Did you harpoon these patients?

Dr. Dean.—Dr. Hulbert kindly gave me a specimen.

Dr. Hughes.—I think it would be interesting to try chloral; to get some of this trichinosed flesh and see what effect chloral would have, whether it would suspend or destroy their vitality. I am certain it is the best remedy on the living subject.

Dr. Dean.—I think it is now found better to excise a piece rather than harpoon the muscle The incised wound heals better, and larger bits may be obtained.

Dr. Hulbert.—I would not attempt to harpoon again. I used a Bruns' needle, which is a cannula with a hooked needle. I tried two or three times, but could not get any specimen at all.

Dr. Dean.—I would ask the Doctor if he examined the stools microscopically?

Dr. Hulbert.—I did not. Both the cases were constipated.

Dr. Dean.—They came to you after the diarrheal stage.

* * *

Dr. Steele.—You will remember, Mr. President, the last time I appeared before you I treated somewhat briefly on one form of flat foot, talipes valgus; and related a case. As it is always interesting to know the result of our cases and as at that time the case was not yet completed, I would like to refer to that matter again. I received a letter a few days ago, dated October 18. The patient, who was the writer, says: "You must think I have forgotten all about you, but I have not. I have been getting along so nicely that I have not thought to write. (And then he goes on to say that he went to a certain place and spent the summer). While there I walked a great deal more than was necessary, but it troubled me only a few times; it seemed to strengthen a great deal. And during that time my leg gained a quarter of an inch which it lacked in length. The ankle bones are not quite in place, but very nearly. It is not so strong, however, that it will not again come out if I go very long without my shoe. The pad was all right and worked splendidly."

You will remember I showed you the impression of the cast; it was the left foot that was involved, and here are the impressions of the feet as I showed them to you at that time when the patient came under my care. The right foot is normal and the left foot flat. These are the impressions that he sent me the other day with this letter. You can see the foot is very nearly normal. I then stated that my especial treatment consisted in developing the tibialis anticus. The pad which was used by this patient was something of this shape, being merely a sheet of steel pounded out but heavier than this; about this shape and about that high. This is the pad he refers to as being the one that was of so much comfort and accomplished so much.

I now show you a new shoe that I have gotten up, and which I believe is a good thing. The case for which that was made was talipes varus—club-foot; the other is just the opposite condition. This was made for a boy eleven or twelve years of age who had the deformity from birth. He was operated upon in Germany. He walked on the side of his foot. I divided the plantar tissue of the sole of the foot very thor-

oughly, placing the patient under the influence of chloroform and using a machine, that I have, to bring the foot around into position by exercising the power of almost a thousand pounds. Thus I very nearly straightened the foot with this machine in about five minutes, and there was no sloughing of the parts; it did not cause sloughing at all. This was done merely to get the foot in a good position, and then I put it in a plaster of Paris bandage and allowed it to remain so for ten days or two weeks. When the foot was ready I devised this shoe which you see. The trouble in these cases is not at the ankle joint, as we might suppose, but the trouble occurs at the mediotarsal joint. The heel there is nearly on a straight line; the anterior part of the foot is twisted. Now the best way for holding the foot around in place and keeping it there is by the hand, but that cannot be used continually for this purpose; therefore we must devise something to take the place of the hands, and here we have it. This being the foot, we move the anterior part of the foot outwards, upwards, and while he has been treading on the outside of the foot we now make him tread on the inside and turn it this way. This I can do very readily. There are two clamps here, and turning the screw here we can bring these parts together and hold it there. It is on the principle, you will remember, of the head-mirror which is used by a little clamp; and when you get the mirror at the right place you turn the screw and hold it there. This boy has worn this for ten days or two weeks. I saw him yesterday, and as I wanted to make a little alteration in the shoe and had it at my office, I brought it along with me to show you. This is not intended for a walking shoe. After a little while, when the joint gets as good a position as is possible, I will give him a walking shoe.

* * *

I will now show you a jacket which is intended for treatment of Pott's disease. It is made of new material just as hard and firm as can be. It is shaped well and fits the patient just as well as a plaster cast. This is made upon a plaster cast and is very stiff. Of course the plaster of Paris is very good in these cases but when the patient is conconvalescing you want something that you can take off at night, and which will allow the patient to bathe; when the patient is sufficiently convalescent this is much better. This is the second one that has ever been made in this city. It is made of a species of netting or crinoline,and is hardened with gelatine. The netting is cut in strips and soaked in gelatine and then wound around and around the cast. It takes eight or ten layers. This is very light and stiff, and then, another thing,it is porous. I have been using leather and it is necessary to have holes cut in it to allow the transpiration of the skin. This is the second one that has been made in this city so far as I know. It has been worn several months and proves very satisfactory indeed.

Dr. Pollak.—Does not moisture affect it?

Dr. Steele.—No; and it requires considerble soaking to soften it.

Dr. Pollak.—What kind of gelatine do you use?

Dr Steele.—I do not know I didn't stiffen it; it may have been a species of glue.

Dr. Dean.—Will it break if opened, or is it flexible?

Dr. Steele.—It can be doubled. There are no strips of metal in it. This is a sheet that came from Paris.

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Dr. Love.—A case of considerable interest to me during last week was a case of hemorrhage in a child about twelve months old. It had been playing with one of its toys with which it had wounded the gum, and the first notice of it by the parents was when blood was coming from the mouth. On investigation, his mother found a small scratch or puncture in the upper alveolar process in the gum on the left side. In consequence of the fact that the child had had a similar experience some months before, that had been very dangerous, the mother was considerably disturbed. They applied alum and a number of other astringents to the part, with a view of producing a hemostatic effect,without success. When I saw the child it had been bleeding several hours. The blood flowed very freely from the opening,which was entirely confined to one wound, possibly large enough to admit the small end of the small probe that we usually have in our pocket cases. Upon inquiry I found that it was almost a similar wound to that produced by some play-thing a few months before, that had resulted so seriously. The child bled for several days, until it was really in a critical condition. A number of irritating applications had been applied and a considerable amount of nerve action set up; finally they applied the red hot iron. In consequence of my previous happy experience with chromic acid in two similar cases of bleeding, both being from the gum and both being,as this case was,in children of the hemorrhagic diathesis, I attempted to use chromic acid in this case. We know that in

using chromic acid as an astringent it is necessary to use it in as nearly a solid state as we can get it, which is just barely deliquescent. It is a very difficult cautery to control; it runs very readily, taking up the moisture of the surrounding parts very rapidly. In the gums it is a very difficult place to apply it, because there is so much saliva, and the chromic acid runs and diffuses itself generally and very markedly. I appreciated the difficulty of application, particularly as this child was very fretful and in an irritable state depending upon the accident, and also somewhat upon the condition it was in, not having fully recovered from its previous experience. After attempting by myself, with the aid of the members of the family at holding the child, etc., I found it would not be safe to apply the chromic acid and suggested consultation, and Dr. Mudd was called in. I held the child, and he attempted to apply chromic acid; he also was favorably impressed with chromic acid as an escharotic for such purpose. But after a fair trial and no success we resolved upon the use of the red hot iron. The thermo-cautery was applied, resulting very nicely in producing a sufficient eschar to completely close up the bleeding vessels. In the use of the heated instrument, I observe, that it is not best to have the white heat, not to even have the red heat, but simply the dark heat; and not too hot, or it will burn too much; a mild degree of heat is preferable and it accomplishes the purpose very nicely. The case impressed my mind to a considerable degree and it interested me a great deal. The child was really in a critical condition; its digestion and its assimilative powers had been very materially impaired by the previous experience some six months before. The hemorrhage which occurred at this time I thought might perhaps be partially due to the anemic condition of the child. It lacked that tone of the capillaries which should be present, and suggested the question of the so-called hemorrhagic diathesis. It is a question wheth. er there is such a diathesis. I believe that a writer in the Encyclopedia of Surgery (Ashhurst's) speaks of it and gives as his opinion, that it is doubtful if in these bleeders, so-called, the bleeding is not due to some special condition of the blood or capillaries themselves, depending on possibly a scorbutic condition, or a thinning of the blood, or lack of tone generally, sometimes by malarial poisoning. Some years ago I reported a case of a man. aged about forty years, a very intelligent man, who had once or twice in his life suffered hemorrhage when teeth were drawn, and on one occasion he came very near dying. One of the largest molars had been pulled, leaving a very large surface bleeding, and various means had been used to check the hemorrhage, all of which succeeded for a time only. Of course the part was irritated to a very considerable degree and this rather aggravated the hemorrhage. Pressure was applied for quite a long time. The gentleman who drew the tooth devised a mechanical appliance. He made a compress; it was perpendicular and attached to the tooth with a horizontal portion extending out over the bleeding surface. The perpendicular portion was firmly attached to the tooth. Underneath the horizontal plate was put in punk, a styptic used by dentists, and very considerable pressure was secured in that way and the hemorrhage was controlled for hours. Then when the compress was loosened up, although the hemorrhage had been controlled for six or eight hours in several instances, it would recur again as fast as ever. This gentleman temporized a long time, when finally the chromic acid was used and succeeded admirably in producing an eschar which clung to the surface tenaciously. In fact it has been my observation that an eschar produced by chromic acid will cling more tenaciously to the part than that produced by any other means, and I think it gives less pain and less discomfort generally; the parts heal beneath completely before the eschar separates. This was the case with this gentleman; the eschar remained as a plug closing the capillaries, and when finally it did separate after two or three weeks the parts were all healed up. This gentleman had several experiences during his life of a similar character, leading me to believe he was of the hemorrhagic diathesis, inducing me to advise him never to have his teeth pulled, to let them drop out, in order to avoid such a dangerous occurrence. I have observed him closely for several years that have elapsed since and I am inclined to think that there was a constitutional condition present at that time, of a scorbutic character probably, which possibly caused the hemorrhage. And that together with my reading and the case I have just recorded leads me to doubt whether there are really people possessed of a constitutional predisposition to bleed; whether it is not dependent upon conditions that are present at the time which may be relieved by remedies or cured by treatment. In this connection I think I have seen it stated in the press, that the late Duke of Albany, son of Queen Victoria, was a bleeder. My conclusion is that the existence of a hemorrhagic diathesis permanently is questionable.

Dr. Hughes.—Dr. Love has struck the key-

note in regard to the existence of the hemorrhagic diathesis. If you mean by the hemorrhagic diatheses a constitutional habit of body which may be handed down from generation to generation as other diathesis are, there may probably be be some reasonable doubt as to the existence of this diatheses in the same sense as we regard other constitutienal and hereditarily transmissible diathetic conditions. That there are peculiarities of constitution in individuals at certain periods of their lives predisposing them to bleed from slight causes, and which renders their bleeding difficult of arrest under the ordinary appliances which usually influence individuals in general, there can be no doubt. If we observe these cases closely,the children especially, we will find that they are all poor eaters, bad feeders; and that they are possesed of a lowered tone as compared with other children, other children even in the same family. One of my children is possessed of this peculiarity and this peculiarity has been gradually disappearing under the influences which have been brought to bear upon the hypothesis that the child did not possess the irremedial constitutional diathetic condition, but that there exists a condition of lowered tone of the vaso-motor nervous system, a condition approaching under certain existing causes more nearly to the paralytic than is ordinarily found. I do not know whether I am going to make myself understood. I am sure I understand myself. In the malarial districts, for instance, you will find a certain class of people who under the influence of malarial toxicemia take to bleeding at the nose, and they reveal evidence of a congested condition much more readily than their neighbors about them. A paralyzed state, or a semi-paralyzed state of the vaso-motor nervous system under the influence of this poison presents itself much more readily in some persons than in others, and when these hemorrhages occur this same depleted state of the vaso-motor nervous system by which its contractile influence over the arterioles is diminished, its hold on them is impaired. This same condition renders it difficult to bring about a responsive action by the use of ordinary styptic appliances. The outer peripheral nervous expansion receives the same impression in these cases when you apply your styptic, your tanic acid, your perchloride of iron or your actual cautery. It is believed there is a semi-paralyzed condition existing at the time, a lack of impressibility by the peripheral impression which fails to bring about the usual contractile result. Now this is the reason why if you apply a white heat cautery and destroy the vitality entirely of the nervous organism you fail to have contractile responsive action. One should apply such a heat as will, without producing complete destruction, send to the centre an impression from the peripheral heat that comes back with contractile response. Men have been known to bleed to death despite the use of the actual cautery, despite the use of every appliance, from the extraction of a tooth; and parties have been known to bleed from nasal hemorrhage in which no sort of styptic appliance would be effective to promote the necessary contractility to arrest the flow of blood. Now the rational view to take in connection with this subject is this: that these children who are known as bleeders, who bleed so easily from slight and trifling causes; not sufficient ordinarily to excite more than a momentary flow of blood, in which nature herself, performs her own hemostatic, these children are subjects for treatment, not only for the arrest of the hemorrhage at the time; but like fits of hysteriawhich are generally neglected except during the paroxysmal stage by the general practitioner, they are subjects for treatment after the tragic event has passed by. There is a constitutional condition to be remedied; there is a state of the system demanding the physician's attention; and it is the duty of the physician to tell the friends of the patient so and see that the patient's nervous system is properly treated. Of course there is probably a change in the state of the blood; there is probably anemia, if you may call it such; there is probably a deficiency in the constituents of the blood; there is probably a preponderance of the watery elements of the blood; a deficiency of the solid constituents, a relative deficiency of these constituents. If you take the history of most of the cases it is natural that it should be so; it is not improbable that a lowered trophic condition exists. Usually these children are not possessed of solid muscular fibre; you will usually find that the children are florid. they are cases for methodical treatment.

Dr. Atwood.—Whether the full pathological condition on which the so-called bleeder is dependent is resident in the vaso-motor system of nerves or not, whether it depends on a singular condition of the blood, the watery elements preponderating, or upon, as was supposed for years, a deficiency or absence of the middle coat of the blood vessels, whereby the blood exuded very readily through their coats, I am convinced from my observation that the disease is hereditary, and furthermore that the hemorrhagic diathesis itself exists. And I am convinced of the fact because for years I have been a

practitioner in two related families, in which the male members, almost every one of each family, died of hemorrhage resulting from injury and almost every instance when the injury was received purpura hemorrhagica developed; there was bleeding from the skin; ecchymosed blood beneath the cutaneous tissue; bleeding from the gums; bleeding in the canthus of the eye; bleeding from the rectum or anus; bleeding from the bladder. And I was informed by those in families, who were brother and sister, and through whom a relationship between the family existed the hemorrhagic diathesis had been prevalent, and I myself treated one or two of the children who died. The last case was in that of a little boy three or four years old who in running across his mother's room fell with his head violently upon the sharp edge of the dressing-case and divided the tissues of the forehead overthe left eye to a small extent. From this he died. He had four or five physicians and every effort was made to control the hemorrhage, but he bled to death from that slight wound.

Dr. Bremer.—I know a family, in which there were two sets of children so far as the complexion was concerned. The one set was blonde and took after the mother; the other was dark, taking after the father. The blondes were bleeders and the family of the mother were bleeders. I treated one of the blonde children, a boy nine years of age. He had injured his scalp with the sharp tooth of a comb. The bleeding could not be stopped and soon general hemorrhage set in from the canthi of the eyes, the nose and from the bowels. This case proves that there is such a thing as a bleeding diathesis, and that this diathesis is transmissible in the same way as tubercular diathesis is transmissible. In regard to the question whether it is constitutional or local, I would remark that it is very hard to answer such a question, because it depends on what you understand by constitutonal or local. There is one thing certain that haemophilia is neither anemia nor hydremia, nor a vaso-motor paralysis; nor is it hyperemia, nor a cachectic state of the blood and of the body in general. There is, above all, a diseased state, or a tendency to disease of the capillary system. We know to-day by experiment that there is no inflammation without there being disease of the walls of the capillaries A certain amount of white blood corpuscles in the normal position find their way through the walls of the capillaries; but as soon as the latter become diseased, as soon as the protoplasm of the capillary wall becomes changed pathologically, so soon transmigration of the white and red blood corpuscles in great masses, i. e. inflammation, will take place. If this morbid state of the capillaries is pushed a little further we have rhexsis or a breaking of the capillaries, and in consequence of this bleeding. Hemophilia is not a nervous disease, nor is it a blood disease; but it is a disease or tendency to disease, not of the circulatory apparatus in general, but of the capillary system. The boy died on the tenth day after the injury. I account for it in this way: The boy when he received the injury was probably in a state of health that promoted the bleeding. The bleeders are not bleeders at all times; the disposition is there, but I suppose it takes a noxious factor of some kind to increase this tendency; deterioration of the blood for instance. In an anemic state there is always a greater disposition to bleed than when the blood is normal; and the fact that this boy's blood oozed from an insignificant wound for a number of days was sufficient to change the character of the blood, and with it the whole capillary system, so that general hemorrhage from all the mucous membranes of the body was the result. This is the way I explain it; I do not know whether I am right or not.

Dr. Love.—The point I wanted to make was that in my judgemut probably in these so-called bleeders, the temporizing measures are usually used too long—styptics, miserably trashy applications that do no good—valuable time is lost, valuable blood is lost; this is generally the manner in which the state that Dr. Bremer refers to takes place. Then the positive measure is the last chance for succeeding. But I do believe, sir, that if we were called to these cases immediately after they had received the injury or within a short time, that we would be able to control the bleeding and there would be no injury to the capillaries; the bleeding could be checked in a very few minutes by the application of mild styptics. I believe that we are justified in using heroic measures at once, such as the chromic acid, the actual cautery or the thermo-cautery and lose no time. I believe, sir, that the fact that cases are fatal is due to delay. Dr. Bremer sates that sometimes they are bleeders and sometimes they are not. This is suggestive of the fact that they are not congenital bleeders absolutely, but that they are susceptible to certain noxious influences, malarial fever, etc. I think there may be some constitutional condition to make their blood more susceptible to poisonous influ-

ences such as malaria, etc. I believe this to be the case, that if a bleeder is a bleeder, he then is always in danger of bleeding from a slight wound, and that this is a very important point, because if such is the case, and there are strong authorities to the statement, that hemorrhagia as such does not exist; that the congenital hemorrhagic diathesis as such does not exist, and if this is the case it is a very desirable state of affairs, because it renders the patient himself much more comfortable if he believes that the bleeding is due to certain causes that can be removed. The nervous effect to which Dr. Hughes gives such stress is desirable, and besides is of general comfort to the parents. In the case of the mother of the child which I reported, it is an only child and an only grand-child in a large family. and they are very much disturbed. If I can but hold out to them the idea that the probability is that this bleeding is produced by a cause that can be remedied, that fact alone will subserve a good purpose, because it will be a comfort to the parents. And I prefer it because it is more comfortable to me; it gives me comfort to think that I may be able to help remove the cause of this bleeding upon slight injury.

Dr. Ed. Borck.—Dr. Atwood, what was the complexion of the bleeders of whom you spoke?

Dr. Atwood.—They were all brunettes.

Dr. Hughes.—I feel quite confident that a child of the age mentioned by Dr. Love could be treated out of the hemorrhagic diathesis by the time it reaches maturity. What I mean to say is that this hemorrhagic diathesis is a lowered state of the nervous system, vaso-motor and trophic, so far as I have been able to observe, and that the condition of these individuals in regard to the facilty with which they bleed at different times in their lives being known as bleeders up to the period of puberty, and after the period of puberity and during puberty not being known as bleeders, is indicative of the fact that there is a change of the condition of the system which promotes this tendency. That this condition of the system is transmissible it cannot be denied, but that it is a diathetic condition to the same extent that other diatheses are, may be doubted. That is all I wish to say on that point. I do not wish to deny any of the facts; they are too patent to gainsay that there are families who bleed with greater facility than others. Every obstetrician knows with how much more facility some women bleed than others. During the menstrual periods some women have profuse hemorrhage, while others have scanty hemorrhage all through their lives; and you know that when the menopause comes, some women go over it with gradually decreasing hemorrhages, while others have very profuse hemorrhages and irregularities; these things depend upon the nervous system to a great degree. That is the position that I wish to be undrestood as occupying on this subject.

Dr. Bremer.—I want to make a few remarks on what Dr. Love has stated. Sentimentality in medicine does not change the pathology of the case nor the chances of recovery. The very fact that there are families which are bleeders proves that the trouble is a constitutional one; that there is a constitutional tendency, and that this constitutional tendency is transmissible from parent to offspring. So far as the vaso-motor theory and that of the trophic nerves, as playing an important part in this constitutional anomaly, is concerned, I would say that those are mere hypotheses. It is not proven that trophic nerves properly so-called exist; they are hypothetical. That vaso-motor influences produce hemophilia is also a theory not substantiated by physiology or pathology.

BOOK NOTICES AND REVIEWS.

The Courier-Review Call Book; A Physician's Pocket Reference Book and Visiting List, arranged and prepared by Dr. E. M. Nelson. (J. H. Chambers & Co., St. Louis, Mo.; Chicago, Ill.; Atlanta, Ga.)

The issue for 1885 of the above named useful publication is ready for distribution. The wants of the practitioner at the bedside are considered in first order and the result is a convenient and ready volume, arranged for thirty-five patients per week. In addition to the calendar for 1885, and the table of signs usual in such publications, we meet with the following eminently practical contents:

1. Number of drops in a fluid drachm of forty-two medicines, both as dispensed from bottles and from the minim glass. 2. Diet table for Diabetics, detailing the allowed and forbidden articles of Vegetable Food, Animal Food and Drink. 3. Doses for Inhalation of thirty-nine drugs. 4. Prediction of day of Confinement. 5. Comparison of Thermo metric Scales. 6. Metric System of Weights and Measures. 7. Doses for Children. 8. Formulæ and Doses for Hypodermic Injections. 9. Methods of Artificial Respira-

tion. 10. Directions for Care of Batteries. 11. Disinfectants; a valuable chapter in Sanitation. 12. Clinical Examination of Urine; a complete review of physical qualities and chemical examination. 13. Treatment of Poisoning. 14. Diagnostic Table of Eruptive Diseases. 15. Posological Table.

Then follow blank leaves for Visiting List, Obstetric Record, Vaccination Record, Death Record, Nurses' Addresses, Accounts Rendered, Cash Received, Articles Loaned, and General Memoranda.

Taken all in all, it is a most complete, and, at the same time, concise book.

PRACTICAL RECOMMENDATIONS FOR THE EXCLUSION AND PREVENTION OF ASIATIC CHOLERA. By John H. Rauch, M. D., Secretary Illinois State Board of Health. Address read at the Opening of the National Conference of State Boards of Health, St. Louis, Mo., October 13-15, 1884.

A DISCUSSION OF SOME OF THE QUESTIONS OF MEDICAL EDUCATION AND MEDICAL ETHICS. By Henry Leffmann, M. D.; CROUP, by T. V. Crandall, M, D.; REPORT OF INTERSTITIAL KERATITIS IN A SUBJECT WITH PROBABLE HEREDITARY SYPHILIS, by Charles A. Oliver, M. D.; papers read before the the Philadelphia County Medical Society, September and October, 1884.

LOCKJAW OF INFANTS, by J. F. Hartigan, M. D. Bermingham and Co., New York.

THE MEDICAL GRADUATE AND HIS NEEDS. By G. C. Wellner, M. D., Geo. S. Davis, Detroit, Mich.

SURGICAL DELUSIONS AND FOLLIES, by John B. Roberts, M. D., Professor of Anatomy and Surgery in the Philadelphia Polyclinic. F. Blakiston, Son & Co., Philadelphia, Pa.

DIPHTHERIA, CROUP, ETC., OR THE MEMBRANOUS DISEASES; a delineation of the Chloral Hydrate Method of Treating the Same. By C. B. Galentin, M. D. J. H. Vail & Co., New York.

THE MEDICAL RECORD VISITING LIST FOR 1885. Wm. Wood & Co. New York.

ZIEMSSEN'S MOTOR POINTS OF THE HUMAN BODY. A Guide to Localized Electrization. By Henry Tibbitts, M. D. J. H. Vail & Co., New York.

This is a series of valuable plates and undoubtedly of great service in the judicious employment of electricity, both in the diagnosis and treatment of disease.

ANATOMY, PHYSIOLOGY AND HYGIENE: A Manual for Colleges, Schools and General Readers. By Jerome Walker, M. D. A. Lovell & Co., New York.

—The Representatives of the United States on the International Committee for the Collective Investigation of Disease are Dr. N. S. Davis, of Chicago, and Dr. A. Jacobi, of New York. We call attention to the statement of the Committee in our last number.

—Chicago Medical Directory.—A Medical Directory of Chicago is now ready for delivery. It makes a departure from the directories published in taking the list of the State Board of Health, as the source of the names published, affixing the letters (R), for regular; (H), for homeopathic; and (E), for eclectic practitioners. The publication further contains a list of the registered dentists and pharmacists in Chicago and Cook county, together with items of interest relative to National Associations, and the societies of Chicago and of Cook county in particular. The editor is Robert Tilley, M. D., and the publisher, W. T. Keener, 96 Washington St., Chicago.

DEATHS IN ST. LOUIS FOR THE WEEK ENDING NOVEMBER 8, 1884.

Small-pox	0	Convulsions and trismus	10
Measles	0	Heat stroke	0
Scarlatina	0	Apoplexy	3
Diphtheria	21	Other diseases of the brain and nervous system	8
Membranous croup	3	Cirrhosis of liver and hepatitis	3
Whooping cough	1	Enteritis, gastro-enteritis, peritonitis and gastritis	3
Typhoid fever	5	Bright's disease and nephritis	4
Cerebro-spinal fever	0	Other diseases urinary organs	2
Remittent, Intermittent, Typho-malarial, congestive and simple continued fevers	6	Diseases generative organs	1
Puerperal fever	0	Diseases of the locomotory organs	0
Diarrhœl Diseases.		Diseases of the integument	0
Under 5 years	5	Accidents of pregnancy and childbirth	0
Other ages	2	Congenital debility, malformation, etc	7
Erysipelas	1	Senility	5
Pyæmia and Septicæmia	0	Surgical operations	0
Syphilis	1	Deaths by suicide	0
Inanition, want of breast milk, etc	3	Deaths by homicide	0
Alcoholism	1	Deaths by accident	2
Other zymotic diseases	0	Execution by warrant of law	0
Rheumatism and gout	0	Unknown	0
Cancer and malignant tumor	3	*Total Deaths from all Causes*	168
Phthisis and tuberculosis Pulmon	22	*Total zymotic Diseases*	49
Marasmus—Tabes mesenterica and scrofula	6	*Total Consitutional Diseases*	38
Hydrocephalus, tubercular meningitis, etc	2	*Total Local Diseases*	71
Other constitutional diseases	0	*Total Developmental Diseases*	12
Bronchitis	5	*Deaths by Violence*	3
Pneumonia	15	*Unknown*	0
Other diseases respiratory organs	6		
Diseases of the circulatory system	4		
Meningitis and encephalitis	7		

GIB. W. CARSON, M. D.,
Clerk of Health Commissioner and Board of Health.

THE WEEKLY MEDICAL REVIEW.

VOL. X. No. 21. CHICAGO AND ST. LOUIS, NOVEMBER 22, 1884. TERMS: $3 A YEAR.

MURIATE OF COCAINE.—The testimony in favor of this wonderful agent in obtunding the sensitiveness of mucous and sub mucous tissues has received no check, nor do we anticipate that it is likely to. Numerous papers have appeared in the journalistic literature, all of which correspond in substance to the testimony previously borne, of which the article (see REVIEW No. 168) by Dr. W. E. Ground may be taken as a specimen. The only practical difference is that stronger solutions are being used, some of them as high as seven to ten per cent. It does not seem possible that any inconvenience can arise from it. From all sides come corroborative reports as to its wonderful action and our home-oculists have already had successful and gratifying experience in its use. The field of its applicability, however, does not end here. Experiments show that its anesthetic influence is also exercised upon other membranes. In fact, as already stated in the REVIEW, it had, previous to its employment by Koller, been used to produce anesthesia of the larynx. In dentistry, gynecology, genito-urinary surgery, rectal surgery, it seems to promise much. An effect upon the integument has even been claimed; and in that event, what a blessing it would prove in minor surgery.

Investigation by a great number of observers is at present limited only by the scarcity of the article and the great rise in its price due to the demand for every grain in the market. The Medical and Surgical Reporter states that the physiological action of cocaine of lowering, even of destroying, the sensibility of the sensory nerves was noted as early as 1868 by Morenoy Matz, who published a monograph on the erythroxylon coca in Paris.

The tincture, fluid extract and wine of coca do not have the decided anesthetic effect of the alkaloid.

TOBACCO-SMOKE.—A series of experiments for the purpose of ascertaining the physiological action of tobacco-smoke have been reported by Dr. Zulinsky in a Polish medical paper. He declares that the poisonous character of the smoke is not entirely due to the nicotine which it contains. Tobacco-smoke rendered free from nicotine remains poisonous, though not to so great a degree as before. The second poisonous principle is an alkaloid, colidin. Carbonic oxide, hydrocyanic acid, and other noxious principles, are also contained in tobacco-smoke. The bad effects of excessive smoking depend very much both on the kind of tobacco consumed, and on the manner of consuming it. In cigar-smoking the greatest amount of poison is inhaled, in cigarettes much less, in pipes still less, whilst those who indulge in the nargile, or any similar luxury, where the smoke is drawn through water, take tobacco in its least mischievous form. Such are Zulinsky's conclusions. There can be little doubt that many of the light-colored tobaccos have been partially bleached in order to give them that pale tint which moderate smokers believe to be an infalible indication of mildness. The decolorizing agent is suspected to be, in many cases, a deleterious chemical compound. Some of the light tobaccos smoke exceedingly hot, owing to the quantity of woody fibre which they contain. This is especially the case with "bird's eye," which is cut near the stalk of the leaf, the slices of the midrib, thick in this part of the leaf, giving this variety of tobacco the characteristic appearance from whence it derives its name. "Bird's-eye" is very apt to

cause slight inflammation of the tongue, on account of the irritant character and heat of its smoke; and, together with other light tobaccos, must act very prejudicially in elderly smokers, who may be prone to cancer of the tongue or lip. Dark tobaccos are readily adulterated; but when pure they are probably the most wholesome for pipe-smoking.

Medical Education.—Before the Philadelphia County Medical Society Dr. H. Leffmann read a paper on the above subject, and at the close submitted the following for discussion:

"What should be the extent of the preliminary requirements, and how should they be ascertained?

How far should specialization of the course be carried, and would it be feasible to confer special degrees?

Could such a special degree as Doctor of Medical Jurisprudence be conferred, and would it be of advantage?

Would the profession and the community be benefited by a State Board of Examiners, who alone should have power to grant licenses?

If a State Board should be established, do the interests of the higher education require that any but regular practitioners should be represented on it?

In case a student transfers himself from one college to another of equal standing, should he be subjected to an examination with a view to determine his fitness to pursue his studies?

We trust that no special degrees will be favored by the profession. Let us labor hard to make the M. D. degree a good degree, and one not too easy to obtain. At any rate it does seem that any such title as the one suggested should rather come from the legal fraternity than from the medical."

Dr. J. B. Roberts in discussing the paper from which the above was taken paid a very high compliment to the Illinois State Board of Health, and at the same time deplores the educational status, not of the students who begin their course, but of those who are just ending their studies. He says:

"My former experience as a quiz-master gives me some right to speak of the defective knowledge often found in advanced medical students. I have also read some graduation theses. Perhaps some other members of this Society have enjoyed that high privilege. If any such are present they will remember the circumstance because of the ludicrousness of the high-sounding name "thesis." The Paris theses are printed, and often referred to as sources of medical information. A collection of all the theses presented to the American medical colleges during the last five years would be more entertaining than that book of books, English as She is Spoke, and no Mark Twaine's preface would be needed.

Does it not seem strange that the profession of Pennsylvania should take no radical step to elevate medical education, when Illinois, Virginia, and even the youthful Nebraska have struck terror into the heart of the half-educated graduate. The State Board of Health of Illinois will not recognize a diploma as entitling the holder to a certificate for permission to practice in Illinois if the college granting it falls below the minimum schedule. This schedule requires a preliminary examination or equivalent documentary evidence and teaching in hygiene and medical jurisprudence in addition to the ordinary branches. It also demands three full years of professional study, quizzes at least twice a week, and the final examinations to be conducted, when practicable, by examiners other than the professors. How rigidly this standard is enforced I am unable to say, but I know that a graduate of last year in this city, who intended settling in Chicago, showed me a few months ago his papers telling him to appear for examination in hygiene before the Board. What a slur upon Pennsylvania medical teaching! A Philadelphia doctor who graduates with honors cannot practice on the Western prairie until he is examined as to his professional knowledge. In other words, he is a good enough physician for old

Philadelphia but not for the young West! Humiliating, truly! but not to Illinois.

Virginia has done even better, for she has established a State Board of Medical Examiners, before which every applicant for practice, after January 1, 1885, must pass a satisfactory examination before receiving a license to practice medicine or surgery. Two examers-at-large are to be elected by the Society, three from each of the ten electoral districts of the State. A fine of $500 is to be imposed upon those who do not comply with the terms of the law."

Malpractice Suits and Medical "Experts."—Judging from the transactions of the various associations the profession is just now a good deal concerned over mal-practice suits and the obligations of the profession to give an opinion when called upon by the court. The Circuit Court has ruled in Chicago that a physician is under no obligation to give an opinion on a given case when called as a witness to facts. Personally, we cannot see the justice of this ruling. That it is law, we must of course concede to the superior knowledge of the judge in question. But it does seem as though the ruling leaves us to infer that the judge merely occupies his seat to act as umpire relative to the amount of technical knowledge displayed by the lawyers engaged in the contest and can be absolutely oblivious relative to the result. We suppose that such a position is one of the necessary evils associated with the execution of law, but it is nevertheless deplorable. Physicians are exempt from serving as jurymen and we see no reason why the court should not be empowered to call on them for special knowledge in order to enable it to distribute justice, and to form more accurate opinions relative to questions on which it cannot in the nature of the case form as clear conception without a clear explanation of facts. We find, moreover, in the article by Dr. Samuel P. Duffield in the Transactions of the Michigan State Medical Society that the Supreme Court of Alabama ruled differently; and according to the Medical Record Judge White of Pennsylvania has decided that under the law a physician must answer a summons from a court to appear and testify as an expert without remuneration.

This question is a matter of grave importance to physicians and the reply of the Hon. Geo. V. N. Lothrop to a question on the subject by Dr. S. P. Duffield cannot fail to be of interest:

"I should have answered your letter sooner but I hardly knew what to write. I do not find that the point you raise has ever been decided in America, and in only one case in England. Greenleaf in his evidence cites the English case in a note, but does not discuss the point at all.

I am strongly inclined to the opinion, however, that an expert will not be compelled to testify as to matters of skill if he objects. Of course, when subpœnaed, he must obey its mandate and attend; and then, when it appears that he is called to testify, not to facts but only to matters which call for his professional knowledge and skill, he should object to answer, and insist to the judge that he should not be compelled to answer such questions against his will. And I think the ruling of the English case would be followed.

Yet while I say this I must admit that the apparent practice in this State has been the other way. Experts are subpœnaed and questioned as to matters of skill just as ordinary witnesses are to matters of fact. Oftentimes they have a special arrangement and receive pay, but this does not necessarily appear in the case. Nor does the subpena disclose whether the witness is called to testify to facts in this case, or as an expert. This is developed only on examination. Hence I say he must attend, and if it turns out that he is wanted as an expert, he should decline to answer and submit the point to the court. If the court should require him to answer and he should still refuse, it might result in an imprisonment for contempt, which could only be reversed by the Supreme Court. But any witness who chooses to raise the question should be advised carefully by counsel at each step."

Dr. J. B. Weist of Richmond, Indiana, in the Transactions of the Indiana State Medical Society introduced the question of Civil Malpractice Suits in a very correct and able way. The general object of his paper is to show the necessity of adopting some means of trying to avoid the vexation and expense to which the surgeon is put to defend himself against a false charge of violating the law. As he says further on, the profession does not "ask exemption from the penalties of the law when they fail to possess or employ the highest knowledge and skill attained by the profession or that its heaviest judgment be not visited on those who ignorantly, drunkenly and grossly trifle with health and human life, but that they be not held responsible for not doing perfectly what is absolutely impossible."

The subject was continued in another paper before the Indiana State Medical Association, which winds up with the recommendation that, "provided only that a reasonable ground for the treatment pursued exist," all medical men should support each other. Certainly all honest medical men would pursue such a course and other men too, whether medical or not, supposing they were honest. But there is such a thing as being too eager to give testimony on behalf of a brother practitioner. We were personally informed by a juryman who sat on a case of this kind some six months ago that the medical testimony was altogether too abundant and too eagerly given to have any weight with the jury.

If there is any consolation in knowing that we in America are not the only sufferers from this inconvenience, we could refer to a case of unparalleled vexation and injustice which occurred in England some time ago, where practically the whole profession contributed cheerfully to defray the associated expense. This was a case too, not in surgery, but associated with a fatal case of diphtheria.

The questions, relative to "experts" and alleged malpractice are interesting, practical and difficult; and in trying to solve them we must remember that we are not only medical men, but members of the whole human family.

Testimony Relative to Chicago Refrigerated Beef.—Good beef, good beer and good bread are things not to be despised. It is a question now, however, only of the first mentioned article. The following is what Dr. Lassing (Boston Med. and Surg. Jour. Nov. 6, 1884.) says of the Chicago product:

"By actual experiment made this past summer, with the thermometer varying from 56° F. to 94° F., with two pieces of rib roast bought in the open market, one being Chicago dressed, the other New York meat fresh killed, but both being from similar cattle as regards quality and weight, the New York killed beef decomposed the third day, while the Chicago beef was perfectly fresh and sweet on the twenty-second day, and was then cooked and eaten. Both were exposed together in the open air away from any ice box."

There has been considerable prejudice created against this so-called Chicago dressed beef by ignorant and malignant misrepresentation, sometimes wilfully confounding inferior canned beef, which, because it is also packed in Chicago, has been called "Chicago beef," and again, the writer has frequently seen butchers selling Chicago dressed beef as home dressed beef, while they were vigorously declaiming against this Chicago stuff, and pointing out inferior home beef as being Chicago meat. It has got to be quite customary now with careless reporters whenever, justly or unjustly, meat has to be spoken of as the cause of sickness, glibly to describe it as Chicago beef, thus creating an unfounded prejudice against what is really a wholesome, palatable, and cheap article of diet. Many districts of country which have heretofore suffered for the want of tender, toothsome beef are now well supplied from this source.

The Chicago Floating Hospital Association.—We take advantage whilst correcting a slight error in the Medical Record to call attention to the excellent work done by the above association. In the issue of November 8, the Record says:

"Chicago has followed the example of New

York, and last summer established a floating hospital, upon which twenty-one thousand four hundred and eighty-nine persons were cared for and treated."

In looking over the Medical Register of New York the only institution which we can find described which bears any semblance to the Chicago Floating Hospital is the "Seaside Home of Children's Aid Society." We are told that it is open during the warm weather and that the number of sick children cared for during the summer of 1883 was 4,140. We are not told how long it has been in existence and consequently we are unable to tell whether our metropolitan city was the pioneer in this act of benevolence or whether the honor can be claimed by her Western sister, Chicago. The probability is that New York was our pioneer by many years. The Chicago Medical Directory tells us that the Chicago Association was founded in 1875, and the amount of work done will compare well with the similar work in the East. We are satisfied that the intention of the Record was rather complimentary than otherwise; yet it does rule the wrong way to have simple acts of the most genuine benevolence referred to acts of imitation. We hope and believe that wherever humanity congregates it will need no previous example to provide for the helpless little ones such comforts and blessings which both the New York and the Chicago Associations have provided. And even if it is not true, let us even deceive ourselves and believe that it is true that such acts are the simple evolution of human brotherhood. The following is the summation of the summer's work and reflection on the same ought to give the President, Secretary, officers and donors the sweetest pleasure of their lives:

CHICAGO, ILL., September 16, 1884.

The Floating Hospital Association, in making their annual report, desire to thank those who have so generously provided the means for their summer work.

The first boat was sent out to the pier on Monday, July 7, and the season was continued to and included Friday, September 12, a period of ten weeks—the longest in our history; this number represents the individual trips made upon the lake; the children were taken out in the morning and returned in the afternoon; 21,489 persons were cared for during this time; $1,761.71 has been received; $1,428 has been expended; $333.71 we have now on hand; which it is proposed to use in the purchase of new hammocks, and other necessaries, made imperative by the very decided increase in the attendance from year to year. It was feared at one time during the summer that we might not be able to go on, but the very liberal support given us by members of the Board of Trade and other constant friends, placed the matter beyond doubt. No accident of any kind occurred, and nothing has marred the success of the work. For ice and milk we were indebted, as we have always been, to the kindness of the respective dealers.

JOS. STOCKTON, President. C. L. RUTTER, Secretary.

COOK COUNTY INSANE ASYLUM.—Certain serious charges were made by D. S. Clevenger, pathologist at the Cook Co. Insane Asylum, at the Chicago Medical Society, November, 10, 1884, against the general management of Cook Co. Insane Asylum. At the time a letter was read from the Citizens Association of Chicago requesting the Chicago Medical Society to appoint a commitee to co-operate with a commitee appointed by the Citizens Association to make an investigation relative to the charges made. The medical committee appointed consists of Drs. C. G. Smith. and G. C. Paoli, E. Ingals, R. Tilley and C. W. Earle. Since the charges were made a committee on the behalf of the Cook Co. Commissioners has also been investigating and whether the charges are modified in color or not on investigation, some good must come from the general inspection.

—Ohio statistics show that each year one brakeman in eight suffers injury or death while coupling or uncoupling freight cars.

CONTRIBUTIONS.

THE RELATION OF NERVE TO MUSCLE —BEING THE BASIS OF ANTIPYRETIC TREATMENT IN FEVERS AND INFLAMMATIONS.

BY R. E. HAUGHTON, M. D., INDIANOPOLIS, IND.

Read before the Mississippi Valley Medical Society, September '84.

The object of this paper is to show how blood, supply to tissues is controlled and affected, viz., the dilatation and contraction of blood vessels, blood or heart pressure; with a view to the interpretation of certain pathological conditions, and the proper therapeutical agencies in nervous and other forms of disease. In other words, to show our power by remedial agents to produce effects upon nerve centers which shall control blood supply, increase or diminish heart pressure, modify, inhibit or control muscular action as it is found in spasms, convulsions as seen in epilepsy, puerperal convulsions, spasms of children, in strychnia poisoning, tetanus, etc.

FIRST PROPOSITION.

Muscles are divided into general classes, viz., striated and nonstriated, or voluntary and involuntary.

SECOND PROPOSITION.

The contraction of muscular tissue is a limited and definite amœboid movement, in which intensity and rapidity are gained at the expense of variety and power.

This is called differentiated muscular tissue, while other movements are facilitated by cilia and ordinary amœboid movements, as the migration of white blood cells. These latter are contractile tissues.

THIRD PROPOSITION.

All the common or striated or skeletal muscles are connected with nerves which have origin in the cerebro-spinal centres.

FOURTH PROPOSITION.

We have no reason for thinking that the contractility of muscle is called into action, under normal conditions, otherwise than by the agency of nerves and conduction of nervous force.

FIFTH PROPOSITION.

The response a muscle makes to any impulses, direct or reflex, involves its irritability as inherent, but assumes that any influence or agency which is able to evoke the action of a muscle thus endowed is a stimulant.

SIXTH PROPOSITION.

To produce a contraction in a muscle, the stimulus need not be applied to the muscle, but the response in the muscle is the same if the stimulus is applied directly or indirectly to the nerve.

This is proven by the fact that muscular fibres themselves are capable of being directly stimulated without nerves. When a frog or other animal is poisoned by urari the nerves may be subjected to the strongest stimulus without causing any contractions in the muscles to which they are sent, while very ordinary stimulus applied directly to muscle cause contractions.

The reason of this is found in the demonstration that the urari paralyses or poisons the end plates of the motor nerve fibres, ending in the muscular fibres by piercing the sarcolemma. In other words, the axis cylinder pierces the sarcolemma and penetrates the muscle. (Kuehne, Rouget, Krause and Wagner-Engelmann.)

Going to the other side of this question, viz., nerve relations and functions, the following propositions are formulated:

PROPOSITION FIRST.

Nerve fibres are concerned only in the propagation of nervous impulses, not in their origination or transformation.

PROPOSITION SECOND.

So far as at present known, impulses are propogated in the same manner along both motor and sensory nerves, the difference between them being that motor influences are generated into central sensory organs and grey cells, while sensory impulses are generally peripheral, and pass from thence to the centres, at least when reflex.

PROPOSITION THIRD.

During the passage of an impulse along a nerve fibre there is no augmentation of energy or force but when passing the grey cells of the centres the energy or force is greatly augmented.

The convulsive energy of muscle is accounted for by this fact in all forms of convulsive disease.

Hence not paresis of power, as Dr. Poole teaches, but augmentation of force by the activity of the grey cell which is acting under some stimulus.

PROPOSITION FOURTH.

When afferent or sensory impulses reach a centre in action or already over stimulated, its activity may be exalted or depressed, may be augmented or inhibited. Hence remedies may be used for the purpose of augmenting or inhibiting this central power.

Thus we get a clear and decisive view of the indications for treatment in convulsive or other nervous forms of disease.

Hence in convulsive forms of disease which are clonic in form—spasmodic—we have a class of remedies which have controlling power over the augmentation of force in the grey cell, so that the impulses which go out upon the motor nerves to muscles are controlled at the fountain of power, viz., the grey cells in the hemispheres and ganglia at the floor of the hemispheres.

What are such remedies? They are found in the old classifications under antispasmodics, now inhibitory. These must lessen blood supply to the cord and brain, produce contraction of blood vessels; modify nervous excitability, and thus control the activity of the cells which augment force. Chloroform, chloral, morphia, veratrum viride, aconite, gelsemium, bromides, ergot, formerly blood-letting, now most properly omitted.

If we have the tonic form of spasm, as in tetanus, we must resort to remedies which influence the terminal endings or plates of nerves in the muscles, and these are found in urari or curare

or woorari. Here we go to the periphery to produce results, as the nerve centres are not under control of the ordinary agents, but the tonic spasm is modified or cured by paresis of the nerve endings, which prevents the centres, as under toxic influence, from affecting the muscle. Thus are we guided in experimental observation to the legitimate use of remedies. Hence curare is the remedy, par excellence, for tetanus, as has now been proved by both experimental observation and legimate use of the remedy, securing success in quite a number of cases found reported in the medical literature of the subject.

The true and legitmate question involved here is this, viz., the relation of nerve to muscle in these questions of disease.

It is unquestionably a broad question and exceedingly intricate, involving the questions of irritability of nerve and muscle, independent of relation to nerves or the nervous system. Suffice it to say here that it is taken for granted that both nerve and muscle possess an inherent irritability by reason of their own peculiar structure. Leaving this question, now, however, we address ourselves to the questions before us.

1. "It is a law in physiology that the functional activity of an organ is directly proportionate to the supply of arterial blood to that organ." (Radcliffe on Epilepsy, page 238.)

Professor Carpenter says that "the pneumogastric nerves and respiratory centres are unable to respond to impressions and originate motor impulses, unless duly supplied with blood."

We introduce these two quotations as a basis for the thought which is vital to the whole question to be presented, viz., that certain stimuli—centric or eccentric—affecting the nerve centres especially the vaso-motor centres produce contraction of the blood vessels while certain other influences which orignate in the nerve centres are inhibitory to the first. Thus in pneumogastrics there is what is known as the inhibitory nerve; and the most striking event observed is that the respiratory rhythm is slowed or stopped altogether. So also the regular rhythmic action of the heart can be inhibited in the same way.

The heart's action, in its rhythmical method, is so uniform that its beats and intervals are as regular as the notes of the musical scale. Hence we find in the respiratory and heart or pulse rate there is a normal action which must be considered physiological. And deviations from this norma of action is abnormal or pathological.

Now we have giv n sufficient data connected with two of the three great vital forces of life, viz., respiration and circulation. As both functions are operated by muscle reduced to a normal standard, the conclusion is inevitable from the relations known to exist, anatomically, that some power co-ordinates the two functions which have related action and influence, and this power is known to reside in certain nerve centres.

One important fact, here to be remembered, is this: that when inhibition is exerted, as to the control of the rate of action found to exist, whether increased respiration or circulation, the effect from the center of nervous power is through the pneumogastric, hence is called the inhibitory action of this nerve and its centre on the rhythm and rate of the respiratory act. Hence there are two sets of nerve fibres, one accelerating, the other inhibitory.

But we are concerned at present mainly with the fact that the stimulation of a nerve may produce inhibitory or accelerated action. When we get the full effect of inhibitory action along the various nerve trunks, it is found the muscular fibre relaxes; the circular fibre of the blood vessels relaxes and dilates to the impulses of blood which flows into the vessel, producing three things, viz., afflux of blood, dilatation of vessels, and increase of vital properties.

Another term is used in contradistinction to inhibition, viz., paresis, which is interpreted to mean relaxation or temporary loss of power, from a Greek word, to relax, defined to mean loss of motor power only—not sensory. Hence we say paresis of muscular fibre, meaning inhibitory power of motor force.

This doctrine, properly understood, covers a large space in pathological interpretation, and even now aids us in the selection and appropriate use of remedial agents.

To examine this question logically, we must begin with anatomical and physiological data. If we find a basis here in the facts, we shall be justified in standing upon it with the application of rigid processes of reason and experiment to guide us.

First, then, is laid down as an anatomical fact, which is sustained by experiment, viz., that the proper function of a nerve cell of grey matter is to generate force, subject only to the conditions which are proper to every tissue, viz., a normal nutrition, by which is implied the highest physiological condition.

If this is true, we begin with the question of the human will, and the action of will as stimulus to muscle.

DEFINITIONS.

1. Stimulant.—What is it? It comes from the Latin, stimulus, and is defined by Webster as follows: "That which stimulates, provokes or excites."

2. "Any agent which produces an increase of vital activity in the organism or any of its parts."

3. "To excite, rouse or animate to action or more vigorous exertion."

4. "To produce an exaltation of vital activity."

5. "An exaltation of organic action."

Anstie defines a stimulant to be any agent, which, by direct action, tends to rectify some deficient or too redundant action or tendency.

Dunglison says, a stimulant is anything which excites the animal economy.

Hence anything, which, by direct or reflex influence, produces abnormal action of nerve and muscle, in any violent degree, is a stimulant to that extent. If we take the example of the will, in its effect on the voluntary muscles, we find that anger is a decided stimulant. It produces mental excitement, and this affects rhythmical action in the heart and sends blood to brain and muscle. But the contraction and relaxation of muscle is the result of the nervous fluid or nerve force, generated in grey cells, and is analogous, if not identical, with electricity; and this charge of force—nervous or electrical—is discharged by the muscles of a good right arm. But the blood which is arterial is the fluid which charges the battery, viz., the brain, and thus is generated the force which is supplied to the muscle.

The main question to be answered is: What are the endowments and true relations of nerve and

muscle? If we look at the results of mind, and its impress upon material nature in all possible directions, we are prone to believe the evidence of our senses, and say that the directing forces in the entire universe were from mind which was primal.

What guides my pen, as I write these lines, but my will and thought, guiding and directing the formation of letters, according to a law of consciousness? Does this power reside in the muscle, independent of nerve relation? Certainly not.

Again, when a nerve which is sensory has been made painful or sensitive, what power or relation teaches consciousness by a reflex action upon the motor tracts, so as to call into sudden action the muscles related to the injured part to remove the painful cause? Is it not some inherent quality of nerve, viz., its irritability, connected with its proper functions of conduction of sensation? The effect of painful impress is, there-therefore, a stimulant to nerve and brain and cord, forming a nervous circuit, required to accomplish protection to the injured part.

Before proceeding farther, we shall classify into propositions the influences and phenomena of the effect or operation of a stimulus, as they shall be found to refer:

1. To mind, sensation, muscular motion and finally to secretion, circulation and nutrition.

Finally, we desire to consider the effect of abnormal and excessive stimulus in spasmodic affections, as epilepsy, puerperal convulsions, convulsions of children, and in fact all spasmodic actions of muscular fibre.

PROPOSITION FIRST.

Every influence which affects mind or brain, increasing mental activity, and bringing volition or will into play, is a stimulant.

PROPOSITION SECOND.

All pain and increasing sensibility is the result of a stimulant, which is excessive.

PROPOSITION THIRD.

All muscular contraction, whether normal or abnormal, is the result of a stimulus, and the more powerful the stimulant, the more powerful the muscular contraction.

PROPOSITION FOURTH.

All secretion is the result of normal or abnormal stimulus, affecting the glands, either through the blood or the nervous system, or both.

PROPOSITION FIFTH.

Every agent which increases the force or frequency of the heart's action and arteries is a stimulant.

PROPOSITION SIXTH.

All agencies which affect the formative and nutritive forces of the various tissues of the body are stimulants.

APPLICATION.

The application of this question of stimulus is to be made in relation to questions which bear directly upon the present teachings of physiology, pathology, and treatment of certain nervous forms of disease, and which have now had interpretation in the agency of the nervous system.

The true relation of nerve to muscle, with a comprehensive knowledge of the indications which certain remedies can exert in modification of the morbid condition of both nervous and vascular and muscular systems, will do much to simplify their management and final cure.

This proposition worked out, we have an explanation of voluntary and involuntary muscular action, first in the heart and arteries, in the respiratory function, in the voluntary muscles as connected with the motor system of nerves; also the comprehension of blood supply to all organs and its derangements; its relations to all the functions performed in the body.

The question of the relation of nerve to muscle does not involve the fact of the manner of the termination of the nerve in the muscular structure, whether by endings in the motor structures, which have nerves terminating in end plates, or by some other ending. It has relation more particularly, as a physiological and pathological question, to the amount of action occurring in a muscle, whether it be normal, excessive, tonic or clonic.

The most striking instance of inhibition or paresis is offered by the heart. If, when the heart is beating regularly and rhythmically, the pneumogastric be divided and the peripheral end be stimlated by an interrupted current for a brief time, the heart is immediately brought to a stand still. It becomes flaccid, motionless, and, after some time resumes its beat again.

Here we should remember that the cardiac ganglia, found in the structure of the heart, are from the the ganglionic nervous system, and the impulses passing along the fibres of the pneumogastric are cardio-inhibitory, and have power to stop the automatic actions of these cardiac ganglia, and the heart ceases to beat.

The same kind of inhibition may take place as to reflex actions; and the spinal cord, as a conductor of reflex impulses, may be inhibited so that the muscles and brain are not disturbed by them as they go up, but may be controlled or stopped.

I saw a case a few nights ago where the reflex impulses were from the uterus, spending their force upon the respiratory function in spasm of glottis and muscles of the chest. I watched a few moments. Decided the spasm to be reflex and remedy was immediately suggested, viz., chloroform and morphia, and at once the anæsthetic made my diagnosis complete. We have said that will is a force, voluntary and effective, and, in response to its dicta, voluntary muscle contracts or relaxes. The stimulus which acts upon the brain, which is the organ of mind, of which will is the executive power, may be emotional or reflex, by which I mean it may be centric or eccentric. Emotional or centric when the feelings, affections or passions so produce action, and the will is brought to act effectively as the executive power. Reflex, when peripheral influences, commonly called sensory, are sent up to the brain are perceived, produce results upon mind, operate upon the will, and thus secure muscular action in any form or act.

But the question becomes far more difficult and abstruse or complicated very much by the nervous relations which come in play when we take into consideration the action of involuntary muscular fibre, how operated, so as to induce the rhythmical action of the heart and arteries, the peristaltic action of the intestinal tract, the periodical and fixed time of muscular action in

labor, in the case of the impregnated uterus, the contraction and dilatation of blood vessels and other tubular structures. These last physiological actions or functions of muscular fiber are found to be under a controlling influence, which gives what is called rhythmical action which may be measured by time, and this power is declared to be the action of the organic or sympathetic nervous system.

While it is regarded as a co-ordinate, correlated department of the nervous system, still one thing is found to be true—that it exerts a controlling power over the inorganic muscular fibre, and by a stimulation on the one hand or a paresis on the other, of the sources of power, we get all the variable conditions of the circulation.

THE DOCTRINE OF VITAL FORCE, OR THE VIS VITÆ.

The doctrine of stimuli, or a stimulus, implies that there is something to be stimulated, and when we consider the organic structure, and the functions performed thereby, we find that there is something responsive to stimulus and which is something resident in the organic structure which is not physical but is inherent in the structure, for the reason that it is vital or vitalized and not dead matter. The words, vital force, says Dr. Inman, signify the force ordering principle which exists in every organized being. It is the power which converts inanimate matter into combinations which the chemist cannot imitate, and frames out of these same materials various organs each performing definite functions. It is not simply a fortuitous concourse of atoms, for these are present, yet no life is found.

It is not nerve force, for this is dependent upon life, and dead nerve or nervous tissue is as powerless as a stone, an inorganic body. It is not, therefore, organization alone, as this may exist in its perfection or completeness in a dead body, yet no life or vital force; it is a force which animates completely sui generis and if so, would imply something prior in time, as the cause of the thing to be explained.

We come now face to face with the application of the question of stimulus.

1. The relation of nerve to muscle in its normal or physiological action is the stimulus of volition or will; by which I mean that in its exercise, physically, morally or spiritually, man is, by his freedom to act, under all normal conditions a free agent. The influences which operate his volitions must be those which affect his judgment.

2. That the power which acts to bring the will into active exercise is thought or volition, consciousness and sensation.

3. These, properly developed and stimulated, produce the exercise of the highest good of the individual.

4. When abnormally stimulated, through any one of these functions just mentioned, it may produce abnormal thought, consciousness and sensation which is brought out in insanity inits varied forms, loss of the relations of things, and abnormal manifestations in the history of function. This latter proposition only is the one which I wish to discuss.

This simplifies the whole question to this, viz., the effect of normal and abnormal stimulus upon the nerve centres, viz., primary, secondary, tertiary, quarternary centres.

Here I follow the classification of Maudsley, and give them as he uses them.

1. The primary centres are the ideational centres, constituting the grey matter of the hemisphere.

2. The secondary centres or sensational centres are collections of grey matter which lie between the decussation of the pyramids, and the floor of the lateral ventricles.

3. The tertiary centres are centers of reflex action, formed mainly by the grey matter of the spinal cord.

4. The quarternary centres are those of the organic or sympathetic, a double chain of ganglia having co-ordinate relation to the cerebro-spinal system.

Having seen the relation of centres as here given and the connection of nerve trunks with these we are in front of the question, the relation of nerve and muscle.

The so-called irritability of tissue, by which it reacts to a stimulus without the help of nerve may be of the same kind as the molecular energy of matter manifest in the humblest animal whether the nerve ends outside the sarcolemma of muscle or within it.

It has recently been maintained by Bilharz and Keehill that the nerves pass by continuity into the muscular substance, and "Pflueger has found also that the nerves to the glands penetrate the walls of the cells, and end in the nuclei of the cells."

The simplest mode of nervous action in man, similar to that exhibited in the lowest orders of animals which possess nerve is found in the ganglionic cells, found in certain structures performing organic processes or functions, and of which examples are found in the heart structure, and in the walls of the intestinal tract, producing muscular contraction which is uniform and follows a rhythmical law of time and order.

Meissner has shown the latter to be true, while Biddel and others have demonstrated these ganglia in the heart, and now Lister believes it probable that cells or ganglia scattered in and through the tissues, preside over the contractions of the arteries. It is coming to this, that the separate elements of tissue are regulated by individual nerve cells, and these act as centres for the tissue supplied thereby, yet these separate ganglionic centres are again subordinated to the cerebro-spinal centres.

If we examine the arrangement of the ganglion centres, so acting that they become independent centres of movements or combined movements in response to various stimuli which act upon the organic structure to produce function; yet these represent the arrangement of the entire nervous system in animals which have no organs of special sense.

This leads us to generalize so far as to say that in man and the higher animals we have a more complex nervous system, associated and co-ordinated for the purposes of higher functions till in man in his highest development, we have the climax of creation, of development and function, yet each department following the law or norma of action, found to exist in the simpler and lower orders where no special organs of sense are found.

Hence in these various centres, as given in the classification we follow especially in the complexity of structure of the cerebral hemispheres we find that grandest specialization of function, viz., human mind and thought, and but a little less inferior to it in the lower animals, as exhibited in instinct and which exhibits phases of thought and even reason, only shows a but slightly inferior de-

velopment of grey matter of the convolutions of the hemispheres. Hence we find as we rise in the scale of development that man has been pointedto as the coming and climacteric masterpiece, in whom are fitly blended all the complexities of the inferior orders in one harmonious whole.

The thought of a celebrated writer, in his grand description of man. is here appropriately beautiful: "What a piece of work is man; how noble in reason, how infinite in faculties! In form and moving how express and admirable! In action how like an angel! In apprehension how like a god!"

Coming now to the evidences to be presented the first proposition which commends itself to our minds is the study and relation of the four classes of nerve centres,and see how each is relegated and subordinated to the one immediately above it and at the same time comprehend that each distinct centre is capable of determining powers and functions within its own realm, independent of the supreme centre. Hence each subordinate centre must be co-ordinated to the one above so as to secure the harmony of relation and function which is essential to health and happiness, the highest good of the individual.

The law which is represented in this relation is expressed or formulated as follows:

The actions and relations of the nervous system are such that "an independent local action is compatible with a proper control of a central and superior authority." This is true of the ganglionic cell,and its action seems to be very much independent of and yet not antagonistic to the central power.

One fact in interpretation of the actions of the central organ, the brain, is found in this, which is demonstrated by Dr.Lockhart Clark (Proceedings of Royal Society, vol. 12, 1863): "That the convolutions of the human brain consist of not less than eight distinct and concentric layers of cells and fibres. and that these cells of the grey matter of the convolutions is thickly studded with countless thousands of ganglionic cells varying in diameter from 1-12000 to 1-300 of an inch in diameter."

The thought in this fact is this that if the grey matter have two kinds of cells closely resembling each other, yet one ganglionic and the other distinct from it, then the conclusion is there must be distinct functions, yet harmony of action and relation.

Hence, the conclusion is reached and demonstrated that wherever there are differences of function there must be difference of structure and composition and connection, and this has been established in the most complete manner by Schroeder Van der Kolk, in his Pathology and Therapy of the Grey and other Structures of the Brain, 1863.

We shall proceed to show some of the instances in which muscular actions first are induced, responsive to ideas, and are not the result therefore of paresis or paralysis of power as has been suggested. Dr. Poole of Canada, in the Medical Record says that any spasmodic action of muscle or any actionwhich is violent is the result of a paresis of power in the centres and the muscles take on this action because there is loss of power, opposing the common idea that it is the result of stimulation more or less excessive.

Now,we do not believe any such doctrine can be true, as this writer seems to have forgotten that there are two or three things which are found to be true in regard to the action of muscular fibre. First the tonus of a muscle, which is normal or physiological, is midway between contraction and relaxation, as the normal position of the muscles in repose, the flexors and extensors mutually balancing or opposing each other. This is the tonus or normal status of the muscle.

Hence when the muscle is thrown into strong contraction it is by some cause of mental or physical stimulus, and contraction will take place, going on to worst forms of spasms, as in tetanus or strychnia poisoning or in milder forms:convulsions of children or in puerperal convulsions, and is known to be a reflex cause, producing the stimulus of irritation and muscular contraction.

When it is found that relaxation or want of power is felt to exist then there is paresis or paralysis, which is the result of inhibition upon motor tracts so that the muscles are not reached by the disturbing cause.

In other words the principle which was stated to be true, viz.,"that the impulses passing through grey cells of cord and hemispheres are augmented or intensified," so that when muscle is reached, it is convulsed.

Let us see now what results if an induced current of electricity is passed through it. Its irritability is increased or it becomes katelectrotonic. The result is a nervous impulse is induced, producing a sudden contraction, which is the only phenomenon observed. But if the constant current is used a contraction is caused in the muscle, either at the make or break or at both.

So far as is known natural nerve impulses are identical in character with the impulses induced in a nerve by artificial stimuli. In a large majority of cases, natural muscular contractions are tetanic in form, and the impulses which occur are not single but are by a successive series being always about in time 1-19 of a second. Hence the conclusion is reached that variations in the energy and extent of muscular contraction apart from any irritability of the nerve or muscle itself depends upon the energy of each individual nervous impulse, as it leaves the central nervous system and does not depend on the rapidity of their action. This corresponds with the statement before made that the grey cell intensifies the outgoing impulse to the muscle. Hence a momentary single injury may produce a tetanus. It is therefore the strength of the stimulus upon which depends the amount or intensity of contraction in the muscle.

THE FUNCTIONAL ACTIVITY DEPENDENT UPON ITS BLOOD SUPPLY.

When a nerve going to a muscle is stimulated, the blood vessels of the muscle dilate, hence more blood goes to a muscle during its contraction than during its relaxation, and this lasts for a time after the contraction has passed by.

This is contrary to what could be expected in contraction, as the blood passes to the muscle in response to a law of supply dependent upon functional activity. If a muscle is disused or paralyzed it wastes, and in this is the law of complemental nutrition.

The fact remains therefore that from labor or exertion or from the effects of diseased nervous force expended upon muscles, their irritability as well as temporary nutrition by impairing or diminishing blood supply, may be exhausted so that they do not respond to the ordinary stimuli, and in this sense are temporarily paretic. If the exhaustion arise from the nerve centres becoming

exhausted, then physiological rest is the cure. If these centres become exhausted from the results of the action of repeated stimuli, such as is found in tetanus, etc., then to arrest the cause either of tetanus or producing paresis of the nerve endings in the muscle so that the sensory impulses are not transmitted to the centres, as this influence, whatever it is, which produces tetanus, over-stimulates the grey cells and finally produces exhaustion of force and final death.

Another question arises here in this consideration, viz., whether a third factor exists, viz., as to the nutrition of muscles being under a measure of control by trophic nerves, which affects their nutrition, independent of blood supply or by some other method than their activity and consequent blood supply induce. This question is as yet sub judice.

EXPLANATIONS OF EXPERIMENTAL OBSERVATIONS ON BLOOD VESSELS.

1. Stimulation of nerves or nerve centres by a galvanic current causes contraction of vessels.

2. Section of nerve causes dilatation of vessels, as it corresponds to paralysis of vessels or paresis. When power is impaired or destroyed dilatation occurs.

3. Paresis of power is the same thing when exerted upon the circulation as section of a nerve induces upon any given area, viz., dilatation, though not so complete. Hence stimulation of nerve centres and paresis of centres are the two opposite conditions which produce contraction or dilatation of vessels.

4. "Division of the cervical sympathetic on one side causes dilatation of the arterial on the same side." (Brown-Sequard.)

5. Division of the fibres of the great splanchnic nerve produces a dilatation of the blood vessels of the abdominal viscera.

6. Vaso-motor nerves contain sympathetic fibres hence if divided produce dilatation of vessels.

7. The difference between contraction and dilatation is tone or tonus of vessels, viz., a medium or midway position between two extremes.

In view of this action of nerves and centres upon muscles and muscular fibre, we should study the antagonistic action of remedies upon the centres and upon blood supply.

Urari paralyzes the nerve endings in muscle.

Atropine paralyzes the inhibitory fibres of the pneumogastrics and thus inhibition by it paralyzes the heart and blood vessels controlled by the pneumogastrics.

Muscarin or jaborandi paralyzes the heart—it stops beating—by the inhibition of the vagus. Atropine restores the beat thus inhibited, hence these are antagonists.

Nicotine slows the heart till inhibition is complete, while its cessation permits the heart to continue, but with final exhaustion as it paralyzes the nerve endings of the vagus.

Hence nicotine and urari exert similar effect upon nerve endings, viz., paresis or paralysis. Hence these are not antagonists. I have just seen a case of paresis of vocal cords from tobacco.

Digitalis and veratrum viride both slow the heart and diminish frequency and this fact is after the law of Marrey, viz., "that the rate of the beat is in inverse ratio to the arterial pressure," rise of pressure being followed by a diminution of pulse rate and fall of pressure with increase of pulse rate.

Hence vascular sedatives diminish heart and pulse rate and produce rise of pressure in blood vessels.

Special stimulants, as brandy, carbonate of ammonia, quinia, capsicum, are antagonists to the digitalis and veratrum viride. These latter are tonics, therefore, to the hearts and blood vessels as we now classify them.

Another fact closely related to these is change in quantity of blood from one vascular area to another. This is done by the inhibition of the heart-action and paresis of vessels, so that dilatation can occur in a special region by action of remedies upon the nerves of supply, thus dilatating vessels, accumulation of blood and increase of vital properties within the vessels and tissues of said region.

This is done in the region controlled by the system of the splanchnic nerve. "The solar plexus is mainly formed by the splanchnic nerves and right pneumogastric nerves and by means of the solar or epigastric plexus, which lies behind the stomach and surrounds the cœliac axis and root of superior mesenteric artery, which artery controls a large amount of blood going to the abdominal viscera.

Hence, the control of the splanchnic system, which forms the solar plexus, gives control to all blood vessels, more or less, within the sphere of the phrenic, cœliac, superior mesenteric, supra renal, spermatic, renal and ovarian plexuses, and thus the blood vessels and blood are increased or diminished to meet the requirements of a pathology and therapeutics which recognizes the control which is given by remedies over these departments of the nervous system.

As we usually express it the control of the splanchnic system of nerves controls the blood supply of a wide region of the abdominal viscera, and thus again we have ample proof that dilatation and contraction of blood vessels affect blood supply, and this is the central fact of therapeutic agency, as relates to a definite pathology of any organ.

I submit that here is outlined and expressed the deeper facts of our science in anatomy, pathology and therapeutics, which to him who would comprehend them must be carefully studied in their relations.

[TO BE CONTINUED.]

TWO PENETRATING SHOT-WOUNDS OF THE ABDOMEN. RECOVERY WITHOUT OPERATION.

BY EDMUND ANDREWS, M. D., LL. D.,
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The enthusiasm of some surgeons in the department of abdominal surgery leads them sometimes to be too sweeping in their assertions. For instance, in urging the importance of exploratory incisions to discover and treat visceral wounds, some have gone so far as to state in substance that the patient has no other hope of life. Now, I believe in the

importance of these exploratory incisions, in proper cases, but the settlement of the question as to what the proper cases are requires us to look candidly at all the facts. The first thing which impresses me, and probably every one who has been in military service,is that the small bore pistols carried by boys and fools generally in our cities make visceral wounds of much less danger than the savage projectiles of the army rifles.

I purposely omit many penetrating pistol wounds which recovered because the fact of recovery prevented positive proof of visceral wounds, since there could be no post-mortem examination; but the following two cases seem tolerably clear.

Case I.—A boy, sixteen years of age, with an empty stomach, was shot squarely in front with a small pistol of calibre 22. The bullet struck the linea alba about an inch above the umbilicus, and the probe passed along the orifice freely into the abdominal cavity. There was considerable shock. He was placed in bed, and treated with strict starvation and opiates. In about a week the bullet passed per anum, with his feces. He recovered without an untoward symptom.

Case II.—A young man, aged 22 years, was in a saloon where a row occurred. He had taken no solid food for four hours, but had just drank several glasses of beer. A policeman's pistol of large calibre, said to be 38, struck him behind in the right loin near the eleventh rib,and passed through him,emerging at the linea alba half-way between the umbilicus and the xiphoid cartilage. A probe passed into the abdominal cavity with ease. He also received another shot in the back of the head. The bullet passing obliquely under the scalp, flattened itself against the occipital bone, and glanced out again at another point. The skull was denuded at the point of contact, but not fractured. The patient vomited blood mixed, as he said, with water, but as I presume, with the beer drank just previously. Judging that there was little doubt of the perforation of the stomach, I proposed opening the abdomen, but the patient would not listen to it. I therefore treated him with starvation and opium. There was not a trace of peritonitis nor of any other dangerous complication, and the patient recovered with ease.

I think that both these cases were wounds of the stomach, and that the thick muscular walls and loose voluminous mucous membrane of that viscus are quite disposed to contract and close up around the track of a small bullet, much as they would about the puncture of an aspirator. Hence I incline to think that a small shot wound in the stomach, is less prone to cause leakage into the peritoneal cavity than one in the thin walls of the colon or ileum. It is obvious, of course, that small bullets will be less dangerous than large ones.

Even the great musket balls are not uniformly fatal,. The Surgeon General, (P. 202, Part 2, Surg. Vol. Hist. War), gives 3,611 cases of penetrating shot wounds with ascertained injuries of the abdominal viscera. Of these 423 recovered. Collations from the various European wars give 1,146 penetrating shot wounds of the abdomen—not distinguishing whether the viscera were known to be wounded. Of these 285, or 25 per cent recovered. My opinion is that a very much larger per cent of pistol wounds will recover, especially if the stomach be the viscus penetrated. Surgeon Otis is of the opinion that in military practice where the stomach and intestines are perforated the abdomen should be opened. In civil practice,the question is much more difficult, because the danger of the operation is not as slight as some enthusiasts state and the hope of recovery without it is considerable. Unfortunately we are unable to determine beforehand the exact nature of the injury, otherwise we could settle the question with ease,but must proceed on such probabilities as we can obtain.The conclusions based on the experiments of certain European surgeons and of Dr. C. T. Parkes in this country in, shooting through the abdomens of animals, may not be applicable in full extent to human beings, but at any rate they illustrate principles. I think we may conclude for the present as follows:

1. Penetrating wounds of the abdomen made by musket shots have a mortality of at least four-fifths of the patients, when not operated on. In military practice a large part of these cases should be treated by abdominal section.

2. In abdominal wounds from smaller projectiles, the risk is less, but if the bullet seems from its direction to have traversed the intestines, the treatment should be the same.

3. If no intestinal wound should be discovered,the operation may nevertheless be of the greatest benefit to the patient, if done promptly, by enabling the surgeon to ligate bleeding vessels, as shown by Dr. Parkes in his experiments.

—A Sanitary Convention under the auspices of the Michigan State Board of Health is to take place at East Saginaw. Mich., on Dec. 2. and 3, 1884.

THERAPEUSIS WITH HYDROCHLORATE OF COCAINE WITH CASES.

BY S. POLLAK, M. D., ST. LOUIS, MO.

Read before the St. Louis Medical Society November 8 1884.

The New York Medical Record of October 11 contains a very interesting letter from the distinguished oculist Dr. H. D. Noyes, being in part a report of the proceedings of the Opthalmological Congress at Heidelberg. He gives an account of experiments made with Hydrochlorate of Cocaine in ophthalmic operations. The effects were astounding, and created quite a sensation among those who witnessed them.

What is cocaine? I quote the statements made about it by Dr. W. O. Moore, of New York: "Cocaine has been known since 1855. It is the active principle of the leaves of erythroxylon coca, a South American plant, especially of Peru and Bolivia, the leaves of which resemble very much those of the tea-plant. Many of the natives during hard work use these leaves, chewing them with some alkaline substance, thus going without food the entire day, but taking their food at night. It has long been known as a perfect nerve stimulant.

"The alkaloid of the leaves was first isolated by Gardecke in 1855, who gave it the name of erythroxyline, but Nieman thoroughly investigated the leaves in 1860, he named the alkaloid cocaine.

"As a nerve stimulant coca has been immemorially used by the Peruvians and Bolivians. Its sustaining powers have been strongly confirmed by observers in this country and in Europe."

Cocaine hydrochlorate is of recent origin, made by Merk, and the anaesthetic effect of it when brushed or dropped upon a mucous surface has been known only a year, it having been used in Germany first by laryngoogists to produce anaesthesia of the vocal cords and surrounding parts to facilitate manipulation.

Dr. Noyes says, "The application of the muriate of cocaine is a discovery by a very young physician, Dr. Koller, of Vienna; he gave to Dr. Brettauer, of Trieste, a vial of the solution to be used in the presence of the Congress at Heidelberg by Dr. B. Dr. Koller had but recently become aware of the notable effect of cocaine, and had made but very few trials with it.

"The following was the experiment made before the Congress: Two drops of the solution were dropped into the eye of a patient; after an interval of ten minutes it was evident that the sensitiveness of the surface was below the normal. Then two drops more were instilled, and after waiting a few minutes more, there was an entire absence of sensibility; a probe was pressed upon the cornea until the surface was indented, it was rubbed over the surface of the conjunctiva bulbi and palpebrarum; the speculum was used to separate the lids, and they were stretched apart to the uttermost; the conjunctiva was seized by fixation forceps, and the globe moved in various directions. In all this handling, the patient declaired he felt no unpleasant sensation, except a little discomfort in the outer canthus. The solution caused no irritation of any kind, nor did it influence the pupil. The anaesthesia seemed to be complete on the surface of the eye, and it lasted only fifteen minutes, and the parts resumed their normal condition.

"The future which this discovery opens up in ophthalmological practice is obvious. The momentous value of the discovery seems likely to prove in eye-practice of more significance; than has been the discovery of anaesthesia by chloroform and ether in general surgery and medicine, because it will have therapeutic uses, as well as surgical uses."

The letter of Dr. Noyes created quite a sensation among the oculists of New York. Fortunately there was a small quantity of the muriate of cocaine in the hands of a few druggists, and on the 14th of October, the distinguished oculist Dr. C. R. Agnew made experiments with it the clinic at the College of Physicians and Surgeons, with astonishing and satisfactory results.

He used it in five cases; three squints, one lacerated cornea, one cataract.

Dr. W. O. Moore used it in three cases: one in keratitis, one double pterygium, one squint.

Dr. J. Minor in one squint and one cataract operation.

Dr. H. Knapp made extensive experiments with it on himself and on his family. On the eye he found it produces no pain nor any discomfort, diminishes sensibility in various degrees in different individuals. Complete anaesthesia can be produced in ten minutes; it is most intense in twenty and lasts only twenty to thirty minutes. Pupils begin to dilate then, and remain stationary thirty minutes; the accommodation is affected by it, it reduces but does not paralyse it. It is therefore preferable to other mydriatics, if the pupil has to be dilated for ophthalmoscopic

examinetion of the interior of the eye. Dr. Knapp tried it also on the ear, on the mouth or tongue, or on the larynx, and on the nose, where he found that muriate of cocaine renders temporarily the mucous membrane insensible, and destroys the sense of smell; but in less than half an hour the whole effect of the remedy is vanished. The larynx and trachea can also be made insensible, likewise the urethra and rectum.

He operated with it for strabismus, one; foreign body, two, pyterygeum, one, cataract, one, old trachoma, one, polypus auri, one; all with the best results.

Dr. St. John Roosa operated for strabismus, two; catract, one; tympanitic neuralgia, one.

Prof. Polk used it in gynecology; in two cases of lacerated cervix uteri.

Prof. Fleische, of Vienna, has seen excellent effects of cocaine during the period of "abstinentia morphia." Persons used to large quantities of morphia for many years could bear the privation of this alkaloid without suffering the well-known tortures which are usually accompanying it.

Even in cases in which morphine is not withdrawn gradually but stopped at once, cocaine showed the best effect.

It was quite natural that I should have been desirous of getting the hydrochlorate of cocaine for my own use. I sent for it immediately to New York, through several of our best druggists. "None in market" was the general answer. It occured to me to invoke the aid of my kind old friend Dr. C. R. Agnew. He very promptly procured a small supply for me from W. Foucar—ʒij of a 4 per cent solution of hydrochlorate of cocaine—at the reasonable price of $2.50, plus 65c expressage. M. E. Squibbs wrote it would be several weeks before a supply could be had.

I had use for it immediately.

1. P. R., a quarryman with a fragment of rock in his eye twenty-eight hours, the lids much swollen, blapharospasm irresistible I had to use elevators to separate the lids, saw the foreign body imbedded in the limbus cornea, impossible to put in a speculum without an anesthetic. I resorted for the first time to the muriate of cocaine. 2 drops were instilled, and in five minutes 2 more drops; in twelve minutes from the start, anesthesia of the lids and eye was complete. I removed the rock with a spud after much scraping; he never flinched and said he had no pain. The patient left immediately, giving me no opportunity to learn the duration of the insensibility and the mydriatic effect.

2. H. S., a lad of eleven, with a slouging ulcer of the lower aspect of the cornea, the result of traumatism, and a considerable protrsuion of the iris, which caused much pain. The prolapsed iris was irreducible, and I decided to snip it off. There was much photophobia and blepharospasm. It was a painful task for me, as well as for the boy, to have the eye looked after and properly attended. All the difficulties were promptly obviated by the use of 2 drops of muriate of cocaine every five minutes, 4 drops in all. He opened the eye voluntarily, I held the bulb with the fixation forceps, removed the protruded iris, closed and dressed the eye; withont any further inconvenience.

3. An aggravated case of Trachoma; the cornea could not be inspected, on account of uncontrolable blepharospasm, 4 drops of hydrochl. cocaine enabled me to accomplish all I desired. I have placed him since under the use of jequerity.

4. Disseminated furunculoid inflammation of the external meatus auditorius in a girl aged 20, which was much swollen, almost occluded, and very painful to the touch. Deep incisions to allay tension were deemed necessary, but could not obtain her consent. Instillation of 4 drops of hydrochl. cocaine obtunded entirely the sensibility of the canal. I made two deep incisions' which relieved the tension, much to the satisfaction of the patient, who declared she did not feel the cutting.

The following cases I held in reserve for the arrival of the H. C:

5. A double convergent strabismus in a girl of 15. I was anxious to dispense with ether, and without an anesthetic, an operation would have been impossible.

Two drops of hydrochlorate of cocaine every five minutes, six in all were instilled. The speculum was inserted, stretched to its maximum, the eye fixed with the opthalmostat, and the rectus internus was divided without hinderance. 4 drops more were dropped into the other eye, and the operation was proceeded with and accomplished as in the first eye. The pupils were dilated in both eyes.

6. A pterygium encroaching upon the cornea of the left eye in a woman aged 22. The eye was very sensitive and the woman very nervous. Instilled twice two drops in an interval of five minutes, the eye was brought entirely under control. Neither speculum nor ophthalmostat were felt. The operation was performed in the usual manner, three sutures applied, without the least complaint from the patient.

I may add, that in conjunction with Dr. Alt, hydrochlorate of cocaine was tried in case of nystagmus, which seemed to have restored quiescence to the eye for the time being.

ON THE ACTION OF THE LOCAL ANESTHETIC MURIATE OF COCAINE.

BY ADOLF ALT, M. D.

Read before the St. Louis Medical Society, November 8, 1884.

The discovery of the local anesthetic action of the muriate of cocaine by Koller, of Vienna, has already led to a number of publications on this subject on this continent, with which the members of this society are undoubtedly familiar.

Since, however, it is as yet very difficult to obtain this drug and thus but few are enabled to experiment with it, I think it is the duty of these fortunate ones to give the results of their experiments to the profession as soon as practicable.

I obtained the muriate of cocaine through the kindness of my friend Dr. W. Hunicke, who also kindly consents to have me demonstrate to you the action of the drug on his own eye.

The following are my experiences with a four per cent watery solution of the muriate of cocaine:

Case I.—On November 4, D. K., aged 18, came to see me at the Pius Hospital. He had been troubled for about twelve years with "sore eyes" (granulated eyelids). The trachoma-granules were mostly absorbed and there was a great deal of scar-tissue formed in the palpebral conjunctiva. The left upper lid was considerably curved inwards and the continued scratching of the eye-lashes on the cornea had not only caused the latter membrane to become dim, but did not allow him to open this eye at all. With great force only could I sever the lids far enough to see what was the condition of the eye-ball. As I intended to operate on this lid, I instilled a drop of the local anesthetic, and after five minutes he opened the eye voluntarily; his cornea had become anesthetic. I now instilled a few more drops, and after ten minutes proceeded to the operation. The first section through the conjunctiva caused no pain whatever, when I cut deeper into the tarsal tissue, the pain was however, as was to be expected, as severe as it would have been without any anaesthetic. I suppose that if I had first soaked the whole lid with the solution of cocaine, the pain of the later steps of this operation might at least have been lessened.

Case II.—Mr. H. J., age forty-three, had been operated upon by me for hypermature cataract on October 14. He had on the ninth day after the operation contracted a severe iritis in consequence of undue exposure, and there was considerable secondary cataract. He bore pain very badly and although his eye was as yet very irritable and greatly injected, I decided to try to make the secondary operation on the fourth of this month, while his eye was under the influence of the muriate of cocaine.

Five minutes after the first instillation the patient allowed my finger to touch the cornea of that eye without winking. I instilled another drop, and after five minutes more I decided to operate.

Although there was not the slightest reflex contraction of the orbicularis palpebrarum, the upper lid, which was somewhat in my way, was lifted by Dr. Hunicke The operation of division of the capsule caused no pain whatever. Not quite satisfied with the result I entered the needle a second time, and all this was done without being felt in the least by the patient, who, I expressly repeat it, was very cowardish and bore pain very badly before.

Case III.—On November 1, I had operated on Miss E. P., age 45, for hypermature cataract with calcareous deposits. The first three days everything had gone well. On the fourth day the eye became irritable and in the night of the fifth an attack of immense pain was brought on by a severe iritis. I was sent for during this night (at two o'clock), and at once instilled a few drops of the solution of muriate of cocaine. It acted like a charm; the pain disappeared and my patient slept until morning, and ever since, although the iritis is as yet very severe, I have been able, by the aid of this powerful remedy, to keep her from suffering any pain.

This is an effect about which we cannot be too enthusiastic; and it has so far not been mentioned by any of the writers on this subject.

Case IV.—Mr. R. P., whom I have been treating for stricture of the nasal duct for several weeks, and who suffered always considerable pain from and after the introduction of the probe, stated that after the instillation of the muriate of cocaine solution the pain from the same manipulation was almost naught.

All of these cases and some further ones which would only be repetitions, show the

effect of the muriate of cocaine on the sensory nerves. I have, however, made one further experiment, which seems to prove that the effect is not limited to these, but that the motory nerves are also affected by the drug.

Case V.—At the Missouri School for the Blind, in the presence and at the instance of Dr. Pollak, I wanted to examine a blind young girl. Her left eye was perfectly staphylomatous, her good eye was highly amblyopic and there was nystagmus (oscillatory motion of the eye-balls) to such a degree that it was impossible to make an ophthalmoscopic examination. I instilled a few drops of the solution into the amblyopic eye and after about ten minutes the involuntary movements of this eye-ball were so far reduced that an ophthalmoscopic examination was not only possible but easy, and the girl could see considerably better. This is a result not obtainable by other known remedies. The staphylomatous eye-ball, which was not cocainized, kept up its oscillations undisturbed.

I will now shortly give the results of the instillation of this drug into my own eye.

Three minutes after the instillation my cornea began to become anesthetic, but I noticed the following fact: the first drop I had instilled into the inner canthus, and while the inner part of my eye was already nearly anesthetic, the outer one was as sensitive as my other eye. The second drop I instilled at the outer canthus and soon the whole eye was anesthetic. Ten minutes after the first instillation the mydriatic effect of the drug began to show itself, and my pupil in further five minutes had reached the maximum degree of dilatation reached by it under the influence of this drug and which lasted about twelve hours. Yet the local effect of the drug was wonderfully shown again in the mode of dilatation, the lower half, where I had instilled the solution being most dilated, in such a way that my pupil was eccentric. When at former occasions I had dilated it with atropia, such a condition never had resulted.

About the same time the mydriasis appeared my accommodation became paretic, and twenty minutes after the first instillation I required a + 30 lens to be able to read Jaeger No. 1 at eight inches. The paresis began to disappear again after it had lasted about thirty minutes.

The anesthesia did not last quite as long.

From the foregoing you see that the remedy is as a local anesthetic all that has been claimed for it. It allows us to perform a large number of otherwise painful operations on the eye without pain; it gives us power to control the severe pain in iritis and other painful eye diseases; it even does away with most of the involuntary movements of the eye-ball and lids; by its mydriatic effect it is an adjuvant in ophthalmoscopic examinaion.

And all this without any disagreeable after-effect, as is shown especially by the experience in the case of iritis, in which the eye has now been anesthetized by the drug for about four days.[1]

It is impossible as yet to judge the immense value of this new remedy to humanity, but what little I have seen of it and communicated to you confirms the experience of others, and is enough to show you that we have by the glorious discovery of the effects of cocaine by Koller made a great step forward in the aim of our profession: Namely, to alleviate the sufferings of humanity.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

REPORTED FOR THE REVIEW.

Stated Meeting, November 8, 1884.

Dr. Alt read a paper on the local anesthetic action of muriate of cocaine and demonstrated its effects upon Dr. Hunicke's eye.

Dr. Pollak read a paper on the same subject.

Dr. A. Green.—Has Dr. Alt noticed any unpleasant effects from allowing the drug to stand long in distilled water?

Dr. Alt.—With regard to the effect of the drug I will say, that I have kept an eye under its influence for four days nearly completely anesthetized, and there has been no injurious effect from it whatsoever. So far as I know the solution does not spoil very readily; I use a four per cent. solution. The solution is not, I believe, affected by the light.

Dr. Rumbold.—Is there any danger in using this drug upon the throat—in the larynx?

Dr. Pollak.—It has been used upon the larynx and is said to have been of great advantage; it is simply brushed over the larynx.

Dr. A. Green.—Does it seem to have any effect on the sympathetic system?

Dr. Alt.—I do not think it has any effect on the sympathetic system. It is possible, probably, to anesthetize an open wound, and

1. This analgesia has been kept up for 12 days.

if it is not possible to get a full anesthetic effect before an operation, the surgeon, as he cuts deeper and deeper, may make use of the anesthetic, and thus perhaps get a full effect.

Dr. Dean.—I studied medicine under such circumstances as to make me not very enthusiastic as to medicines, and I stated when I graduated and before that, that the time would come when pure chemicals and the active principles of vegetables would be used and not the tinctures and decoctions, infusions, etc.; and this practice is growing more and more. Look at our Pharmacopœia, the last revision, which is pronounced as perhaps the best pharmacopœia in the world; but examine the immense number of preparations of the same remedies, such as extracts, fluid extracts, tinctures, pills, abstracts, etc., that must be kept everywhere for dispensing. I do not suppose that any physician uses one fiftieth part of the remedies that are mentioned in the Pharmacopœia. If we have the active principles of these vegetables or the akaloids, we will be at a great advantage; they will act almost immediately—a large number of them will; and we can give them in small doses and watch the effect, giving only enough to produce such effects as we want and we can accomplish a good deal more in that way than we do by the present method. I think that in a few years, a few chemicals and active principles will be in use to the exclusion of the many remedies which are now in use. It is astonishing to see how every day something new comes out and is heralded as something extraordinary, but when we come to know it we find that it is something that we have known for a long time. Take the salicylates, we all know that they have been used for a long time and yet we hear as something new that wintergreen oil will cure inflammatory rheumatism; but it is only the salicylate of methyl and nothing new at all.

Dr. Atwood.—Has this drug been used hypodermatically?

Dr. Alt.—There is no record of its application in that way; it has been used on rabbits and has killed them.

Mr. Meisenbach.—Professor Levis of the Jefferson Medical College of Philadelphia reports six cases in which he used the drug; four were operations upon the eye. Two were for cataract; one for a tarsal tumor. When he cut through the tarsus into the deeper portion of the structure the operation became painful. He also operated upon the nasal duct. In operating a case of procidentia uteri with rectocele he sponged a four per cent solution over the vaginal surfaces for ten minutes until he had done so three times; then he proceeded and states that the operation was painless. Again he applied it to a syphilitic ulcer of the tongue, first drying the ulcer and then sponging it over with a solution of the muriate of cocaine. He states that the application of nitric acid produced no pain. Thus there are other mucous surfaces of the body besides upon which this drug has an anesthetic effect. The drug certainly will be a very great benefit in a great class of cases if the anesthetic property proves efficacious in operations about the vagina, the uterus and the rectum.

Dr. E. Borck.—Does the drug harden the conjunctiva?

Dr. Alt.—Dr. Knapp in describing his operation for cataract under the influence of this drug says, that it seems to be very difficult to expel the cataractic lens, and that the elasticity of the eye was somewhat interfered with. The shaft of the needle I used in the operation, spoken of in my paper, does not quite stop the hole made by it, and some of the aqueous humor usually trickles out by the side of the needle; but in this case none came out. This is quite remarkable and I cannot account for it, unless the drug renders the membranes of the eye less elastic.

Dr. A. Green.—I think I am justified in coming to the conclusion that the drug has a different action upon mucous membranes in different parts of the body, merely because some are thicker than others. We might try the drug in strangulated hernia: by injecting it under the skin, a few drops at a time, I think it would be of some service. I suppose it can be injected subcutaneously over the tumor just under the skin.

Dr. Dickinson.—I have had no experience with this drug at all, but it is with great gratification that I behold the advent of this remedy, for I can anticipate that its use will be so varied and be so potent for good results. As I look backward to the commencement of my medical life when ether and chloroform were unknown, and no anesthetic was employed, and observe the great improvements and the various drugs and appliances that have come into our hands since that period, it appears marvelous. With regard to cocaine, this drug was anticipated or foreshadowed a little by the use of coca. It has been used in cases of neuralgia and of rheumatism by external application and has been said to have proved highly useful by allaying pain. I think at this time we cannot anticipate the wide and extensive use to which cocaine will be applied in future surgery.

Dr. Dean.—I think perhaps one word of caution ought to be said with regard to the use of cocaine, as many may be led to prescribe the various preparations from a knowledge of the value of this salt. It is a fact that the drug is difficult to get in a pure state. A great deal that is sold is of a very poor quality, and so much deception, adulteration, etc., exist that some of the best manufacturers have stopped making any tincture or fluid extract from it. Squibbs, for instance, says he is making one preporation from tea and another from coffee and that the result is much better than can be obtained for a reasonable price from anything he can make from the crude material as it is in the market and as he is able to get it himself. I think perhaps a great deal more would otherwise have been done with the drug than has been done, and besides a great many have misjudged it by getting a poor article and being disappointed in the effects.

Dr. Williams.—I have not been able to get any of the drug as yet, but I am happy to know that it is in the city and I shall get some immediately, and I will report the results I may obtain from its use.

Dr. Meisenbach.—Is there invariably a dilatation of the pupil when the drug is used?

Dr. Alt.—Yes, sir; it has been the same in all cases that I have treated. I have tried it on healthy and sick eyes and its effect has always been the same. I cannot understand how it was possible for any one to fail to see that this is the case. Some one has stated distinctly that it did not have that effect upon the pupil. It has a most distinct effect always after ten minutes, producing marked paresis of the sphincter. But it is not only the pupil that is affected; there is also paresis of accommodation.

* * *

Dr. Funkhouser.—I am sorry to say I have not a very succinct and clear history in a case I wish to report. I was called to see it only last night. The patient had been under the care of another physician for five or six days. He had been treated for malaria part of the time and part of the time for nothing in particular. I saw the man last night at 10 o'clock and found that he was in a comatose condition, breathing stertorous, slow and irregular; his pulse was from 45 to 50. I inquired in regard to the case and found that the patient had been suffering from intense pain of the head for two weeks or even longer before he took his bed. And in going back further in his history I learned that he had come home drunk in his buggy and left the horse standing in front of his door. He came in, sat down in a chair and put his face between his hands. It was found that he had received an injury across the bridge of the nose. This injury must have been a very severe one judging from the remarks of his wife and from the fact that there was swelling and pain for severaldays. Prior to that time the patient had not suffered from any particular trouble. Within the last six weeks the man had met with reverses; his factory burned down; he took to drinking, and drank constantly. I looked at the pupils of the eye, suspecting that the patient was suffering from apoplexy, or an effusion of some kind on the brain. I took it to be apoplexy. The patient became unconscious yesterday morning at about 11 o'clock. His friends imagined that the unconsciousness was due to morphine which had been given to him by the attendant physician. I discovered that his right pupil was contracted and his left one was dilated. I told them that I supposed that we would find the lesion on the right side of the brain. Where the pupil is contracted the oculomotor nerve is excited, and where depression occurs the sympathetic filaments supplying the iris have full control of the dilatation of the pupil. I also found that the patient appeared to be threatened with paralysis of the left side. He was able last night to move his arms to a limited extent, also his right leg. When I irritated the sole of the left foot he didn't move his leg although he made an effort to draw it up. On the theory that there is a cross action we would perhaps expect that the greatest trouble, the greatest lesion would be upon the opposite side, that is in this case upon the right side. The patient, I was told, had not passed his water for some time; I drew off a considerable quantity of water. There was also paralysis of the rectum. On making the post-mortem examination I found adhesions between the dura mater and the brain all along the superior longitudinal sinus. On the surface of the left side of the brain there was considerable blood and a large free clot posterior to the meningeal artery about two and a half inches in diameter. A few small clots were found in the dura mater of this side, but on the right side you will see quite a number of them. The case is interesting from the fact that I found a clot of blood on the side upon which the pupil was dilated, which would indicate that there was compression of some kind. I forgot to mention another lesion on the right side of the anterior portion of the brain at the junction of the middle and inferior frontal convolutions about an inch long and three lines wide, pre-

senting very much the appearance of softening.

Dr. Dean.—I do not think there is any lesion on the left side of this brain that can be seen, or that there is a lesion on either side to which the paralysis could be attributed; but especially I think there is none by which we could judge from the symptoms present that paralysis was due to any lesion on the same side. There is a slight trouble in the anterior lobe of the right hemisphere, but not such a lesion as would produce any such effect for it is not in the right region. With regard to the trouble of the bladder, the very fact of the Doctor's getting such a quantity of water would be enough to show that no rupture existed unless there was a large amount of water in the peritoneal cavity into which the catheter was carried, which would have been discovered by percussion.

Dr. Bremer.—I believe this to be a case not due to any traumatic action but to the abuse of alcohol. This is a case of pachymeningitis complicated with effusion of blood, that is, hæmatoma of the dura mater. For the theory of localization it is not available because the lesion is too diffuse. In all probability, if the case had not terminated fatally so soon, it would have been one of general paralysis of the muscular system, such as we very frequently find in chronic alcoholism.

If the inflammation extends to the cortical substance of the brain softening sets in, producing loss of reasoning power and motion. Now the stertorous breathing would prove that there was a pressure by the cerebro-spinal fluid in the region of the upper medulla oblongata, the site of the nuclei of the pneumogastrics. Perhaps there was a diffused inflammation of all the enveloping membranes of the spinal system as we find it sometimes in chronic and in violent cases of acute alcoholism. I do not believe that traumatisin had anything to do with this case. I shall, however, take the brain with me as the gentleman who presented the specimen has been kind enough to allow me to examine it, and on some future occasion I will report on the pathological examination which I am going to make.

* * *

Dr. Dean.—I might mention three or four cases that I have had within the last five days. In one case, brought in insensible without history, the respiration was four to the minute and the pulse correspondingly low; in fact the radial pulse was scarcely to be found. The smell of liquor was very strong upon the breath. I did not know how much that might have to do with the man's condition. The surface was nearly as cold as in death. I immediately put the patient into a warm bath, making it hotter until it was as hot as we could properly give. We gave hypodermatic injections of sulphate of atropine, 1–60 grain, and the respiration came up to 13 to the minute in a short time, and the pulse came up and the temperature rose considerably above the normal that afternoon about 6 o'clock. When admitted his pupils were dilated; there was no stertorous breathing; no flapping of the cheeks. Post-mortem showed a large clot of blood under the meninges on the left hemisphere.

Another patient that came in for something else, was subject to fits. It was not learned whether they were epileptic in character or not; the last fit occurred when there was no medical man present and lasted only a few minutes. We discovered a depression of the right frontal part of skull and we were debating whether we would not operate on the man if he was strong enough. As I say, he came in for some other trouble of which he died. On post-mortem examination we found a depression on the right hemisphere at least an eighth of an inch in depth about the size of or a little smaller than a silver quarter of a dollar, nearly round. There was no lesion of the brain that could be found, except that the left cerebrum was soft and the so-called pituitary gland was at least three-fourths of an inch in its transverse diameter and nearly half an inch antero-posteriorly. This gland, situated at the anterior end of the spinal cord, corresponds to what the Germans call the Steissdrüse, the coccygeal gland, of which two so much has been made by Luschka, Rindfleisch and others.

We had another case, one of lock-jaw, for which we knew no cause. The daughter came with the mother who was near death then. The history of the case was, that she had received no injury of any kind whatever, but the night before she had slept on damp clothes in the laundry and she believed that it was due to that. But after she was in the room I asked the nurse if any bruises were discovered anywhere about her and she said yes, one on the calf of one of her legs. We found a dry black wound below the surface, probably three quarters of an inch in diameter, nearly round. And it was stated that she received the injury by striking her leg against a wash-tub nearly a week before; but it was insisted that she had no trouble from that injury. There was also an injury of the scalp and

possibly a little depression, but I thought it was simply infiltrated tissue in the wound only recently healed. After death we learned nothing more. I suppose it was caused by the bruise, though incited or aggravated at least by lying upon these wet clothes. But there was such violent spasm of all the respiratory muscles as precluded gaining anything by tracheotomy. She lived but a very short time.

Yesterday we had a woman come in who had fallen, striking upon her head, and who had paresis from the point of injury below the fifth or seventh cervical vertebra. I could find no marked angling either posteriorly or in the pharynx,etc., in this region; but on producing extension,drawing upon the head, she said that she felt better. I heard a little click and supposed that I had gotten some part in position but it was only momentary. I am using extension.

Dr. Bremer.—I saw Dr. Dean's third case. At that time she was not so ill; she only had, it seems, excessive shooting pain about the muscles of the head and neck, but there was no general tetanus; there were no symptoms of difficult deglutition. The case might have passed for a case of idiopathic tetanus, but I am perfectly sure that the wound which that woman received on the calf of her leg was really the cause of the tetanus. The wound looked very angry and perfectly dry and black. This we generally see in ordinary traumatic tetanus. The first symptom of the approaching trouble will be the dryness of the wound, afterwards local mortification, and then the nervous symptoms set in. The woman seemed to be a hard drinker, if I understand physiognomy, and that may have had something to do with the tetanus also. First the unfavorable condition of the patient, next dampness and cold I consider to be the cause of the tetanus. This is so in the majority of cases.

[TO BE CONTINUED.]

ITEMS.

—A New York photographer is quoted as saying: "After twenty-five years' experience under the skylight,and after photographing over 147,000 people, I have become convinced, that in nineteen cases out of twenty, the left side of the face gives the most characteristic likeness, while to the same degree the right side is the most symmetrical."

—The March of Death.-Dr. Farr once said that if he could watch the march of one million people through life, the following would be observable: Nearly 150,000 would die the first year, 53,000 the second year, 28.000 the third year, and less than 4,000 in the thirteenth year. At the end of forty-five years 500,000 would have died, at the end of sixty years 370,000 would still be living; at the end of eighty years, 97,000; at eighty-five years, 31,000; and at ninety-five years there would be 223; at the end of 108 years there would be one survivor.

—Missouri Medical and Surgical Directory.—Dr. C. R. Ammerman of Lewistown, Mo.,is compiling a directing of the character indicated,to be ready January 1st, 1885. It will be an 8vo. volume and will contain the names, post office address, and professional status of the physicians; the names and residence of the officers and members of the various local and State Medical Societies; of the Missouri members of the various National Medical Associations—Regular,Eclectic and Homeopathic; of the State Board of Health; rosters of the U. S. Examining Surgeons for pensions for the State, and Medical officers of the Missouri National Guards; Medical Colleges, State Charitable Institutions, Hospitals, Medical Laws. Fee Bills, etc. The work will be sold by subscription.

DEATHS IN ST. LOUIS FOR THE WEEK ENDING NOVEMBER 15, 1884.

Small-pox	0	Convulsions and trismus.	6
Measles	1	Heat stroke	0
Scarlatina	4	Apoplexy	3
Diphtheria	17	Other diseases of the brain and nervous system	11
Membranous croup	3	Cirrhosis of liver and hepatitis	2
Whooping cough	1	Enteritis, gastro-enteritis, peritonitis and gastritis	7
Typhoid fever	6	Bright's disease and nephritis	1
Cerebro-spinal fever	0	Other diseases urinary organs	2
Remittent, Intermittent, Typho-malarial, congestive and simple continued fevers	9	Diseases generative organs	1
Puerperal fever	2	Diseases of the locomotory organs	0
Diarrhœl Diseases.		Diseases of the integument	0
Under 5 years	5	Accidents of pregnancy and childbirth	0
Other ages	4	Congenital debility, malformation, etc	7
Erysipelas	1	Senility	5
Pyæmia and Septicæmia.	0	Surgical operations	0
Syphilis	1	Deaths by suicide	1
Inanition, want of breast milk, etc	3	Deaths by homicide	0
Alcoholism	1	Deaths by accident	1
Other zymotic diseases	0	Execution by warrant of law	0
Rheumatism and gout	0	Unknown	0
Cancer and malig tumor	1	*Total Deaths from all Causes*	160
Phthisis and ereculosis Pulmon	22	*Total zymotic Diseases*	49
Marasmus—Tabes mesenterica and scrofula.	5	*Total Consitutional Diseases*	28
Hydrocephalus, tubercular meningitis, etc	2	*Total Local Diseases*	71
Other constitutional diseases	0	*Total Developmental Diseases*	12
Bronchitis	2	*Deaths by Violence*	3
Pneumonia	10	*Unknown*	0
Other diseases respiratory organs	3		
Diseases of the circulatory system	4		
Meningitis and encephalitis	7		

Gib. W. Carson, M. D.,
Clerk of Health Commissioner and Board of Health.

THE WEEKLY MEDICAL REVIEW.

VOL. X. No. 22. CHICAGO AND ST. LOUIS, NOVEMBER 29, 1884. TERMS: $3 A YEAR.

CULPABLE NEGLIGENCE IN A MATERNITY HOSPITAL IN THE EAST.—In the October number of the American Journal of the Medical Sciences appears an article on the "Prevention of Ophthalmia Neonatorum" by Dr.H.J. Garrigues. If we remember correctly, the doctor was one of those violent antiseptic advocates, who at the close of last year advocated the injection of a solution, 1 in 2,000, of bichloride of mercury into the uterine cavity together with the other paraphernalia advocated at that time. The question now is the prevention of ophthalmia neonatorum. We have long ago acquainted our readers with the method advocated by Prof. Credé, namely by the application of a drop of a two per cent. solution of nitrate of silver on to the cornea of the new-born. This is the plan which Dr. G. has followed; and of course, the ophthalmia neonatorum disappears as by magic, corresponding in fact to the experience of Prof. Credé. It is however to the one exception, or rather to the case in in which it was not applied to which we wish to call attention. The report says:

"In one case, which during the absence of the House-Surgeon, was delivered by an assistant, the application was neglected, and the child had purulent conjunctivitis with opacity of the cornea. Although it was transferred to the eye ward in order to be under the treatment of specialists for diseases of the eye, the case ended in complete loss of sight in both eyes."

If there is not enough in this paragraph to make the co-workers of the doctor blush, we are surprised. That a child born in a maternity hospital with its associated staff in attendance, should suffer from ophthalmia neonatorum, and lose both its eyes is a disgrace, we were going to say to American Medicine, but that would be foolish; it is not necessarily a disgrace to the whole staff, but it certainly is a disgrace to those on duty. A little further on in the report we are told:

"How little the eyes are affected by the silver solution is best shown by cases in which, through carelessness, so much of the solution was introduced that the eyes became surrounded by black rings."

If there is any demonstration needed of the necessity of antiseptic treatment in the maternity department of Charity Hospital, N. Y., under certain officers, we certainly find the demonstration in the quoted paragraphs. If the assistants cannot be taught or are not required to do things more neatly than to run a solution of nitrate of silver into a babe's eye in such a manner that "black rings" are to be seen as a consequence on the palpebræ what can be expected of the hygiene of the genitals of the parturient woman under such circumstances?

Still further on we are told; "This happens early in the hurry of a delivery room if the application is made with one of the common squirters which are used for counting drops." "This" refers to the black rings surrounding the palpebral fissures. We pass over the elegance of the style calling an instrument for "counting drops" a "common squirter" and ask in the name of common sense what need is there for "hurry" in a lying-in-room not averaging one birth a day, where everything ought to be on hand to meet any and every emergency? That there should be a little hurry and confusion sometimes in private practice, when difficult and unexpected circumstances arise, is certainly to be expected, because as a rule the assistants are not trained, but that there should be "hurry" in a regularly arranged lying-in-room

does not speak to the credit of those in charge.

That a general practitioner in the country, or in the city, should occasionally lose an eye from ophthalmia neonatorum is to be expected. The circumstances which would probably conduce to such a disaster need not be detailed; but that both eyes should be lost in a city hospital with all its associated advantages is a burning shame. We do not wish to insinuate anything relative to the specialists in charge, because the probability is that where such negligence was displayed the case was not handed over to the specialists until it had advanced beyond repair.

"Jequiritine" and Bacteria.—It has previously been shown in the Review that the peculiar influence of jequiritine, amorphous ferment of jequirity, on the palpebral and ocular conjunctivæ was entirely independent of the bacteria which happened to swarm in it. The conclusions formulated by Salomonsen have been corroborated by others; and Salomonsen and his co-workers have devoted their attention to another phase of the question. Messrs. Cornil and Berlioz of France, erroneously accepted the works of Sattler and continued their operations by the hypodermic injection of the infusion of the jequirity bean into the subcutaneous tissue of the lower animals. The animals died as a consequence, and when blood from the affected subject was again injected into a healthy subject, the second animal died in like manner. Moreover, they claimed that if the infusion was filtered, its hypodermic injection was harmless.

Several observers showed that when the active principle which is called jequiritine was used, all bacteria being excluded, death with its associated changes occurred just the same as when the bacteria were present; consequently the legitimate inference is that the subjects operated upon died from the effect of the poison independent of the bacteria. But the relation which the jequiritine bears to the bacteria was reserved for Salomonsen and Derckinck Holmfeld to elucidate. These two workers have shown that even in those cases of hypodermic injection of the infusion, although the bacteria swarmed in the blood the poisonous effects are due to the jequiritine, and that it is associated with a secondary development of non-virulent bacteria. The animals which died in the experiments of Cornil and Berlioz as a result of the hypodermic injection of the blood of the deceased animal into a healthy subject was simply due to the fact that the jequirity was used in the first place so strong that even when diluted with the second frog's blood it was strong enough still to develop its peculiar toxicological properties; this was shown by the development of the characteristic jequirity inflammation in the conjunctival tissue of the eye by the blood in question. It was observed by S. that the bacteria found in the blood varied both in kind and number; and neither the kind nor number seemed to bear definite relations to the severity of the gross anatomical lesions. Consequently bacteria of pure culture—the jequirity bacillus, the micrococcus prodigiosus, bacillus cyanogenus, and a colorless micrococcus were sown into a sterilized solution of the jequirity, and after showing that the culture was still pure, the jequirity infusion thus impregnated was used for hypodermic injection. It was then found that they could find in the blood just what they had injected. Where they injected the jequirity bacillus, the jequirity bacillus abounded, and where they injected the bacillus cyanogenus that variety abounded, and so on with the rest. When the bacteria alone were injected they gradually disappeared from the blood at varying periods, depending on the number injected.

The curious and interesting circumstance is the fact that the jequiritine seemed to develop just the requisite in the blood to allow the bacilli to flourish. We have no doubt that these observers will follow up the interesting line of work which their experiments have revealed and that more pleasure arising from definite and accurate work awaits us in the future. Their entire article was published in

the "Fortschritte der Medicin" of October of this year.

Illumination of the Teeth.—We have had the pleasure of seeing here in Chicago during the past week no less than three batteries with their associated incandescent lamps for the illumination of the teeth. The principle, of course, is not new but its special advantages relative to the inspection of the teeth are not duly appreciated. The small incandescent lamp has a special advantage over the heated platinum and promises to make it more extensively used. When the small lamp is placed behind a tooth it illuminates it brilliantly and reveals instantly any decay or atrophy, and with the aid of the small mirror attached the actual manipulations on the tooth can be carried on independent of daylight. Some, who having lost their teeth have been supplied by art, question the advantage of the normal tooth, and the dentist with this light may be led to question for his work at any rate the advantage of daylight. The question of the light for simple inspection of the teeth we think is practically settled in favor of the incandescent lamps but the source of the light is still sub judice. It is probable that the form of the cell to be used will lie between some modified form of the Leclance or the cell said to have been exhibited by Mr. Party at the Electrical Exhibition at the Franklin Institute. In those that we have seen there was used the Bunsen cell, and the bisulphate of mercury cell as used in the Gaiffe battery; and the contrivance consists of a small incandescent lamp of varying candle power attached by insulated wires and thus completing the circuit of the battery.

Ball for the Benefit of Little Ones in Summer Time.—The Lakeside Sanitarian Charity Organization of Chicago is devoted to the daily care of children during the summer months. The work done during the past summer was most gratifying. Hospital Sunday here in the West does not figure largely in hospital histories; but the receipts from balls are perhaps not less tangible. At any rate this elegant and enjoyable entertainment netted to the Treasury the neat little sum of about $3,500, and the pleasure of the participants must have been augmented by the thought that their gratification contributed also to the fun and happiness of the little ones of the coming summer.

Tolerance of Children to Iodide of Potassium.—Dr. E. C. Seguin says in the Archives of Medicine, October 1884: "In cases of basal meningitis with neuro-retinitis and in some other cases, I have given 4 to 8 grammes (60 to 120 grains) three times a day to patients between four and eight years old, not only with good results as regards the cerebral symptoms, but also without iodism or gastro-intestinal irritation."

Dr. W. W. Jaggard has been elected editor of the Proceedings of the Chicago Gynecological Society.

Gastrotomy for Stricture of the Œsophagus.—Dr. E. Andrews, at the Chicago Medical Society, in detailing a couple of operations for stricture of the œsophagus, justly advocated the more euphonic term of gastrotomy in preference to that of gastrostomy. We have little sympathy with a tendency among some writers trying to make words as long and unpleasant as possible. With many there is an effort to force hypodermatic upon the profession instead of hypodermic, but with what advantage we fail to see. We certainly are at liberty to use the term gastrotomy, and prefer to do so. The following rules are laid down by Dr. J. Fagan, in Brit. Med. Jour., Oct. 4, 1884, for the guidance of the surgeon relative to the conditions calling for an operation.

1. In cases where the obstruction is partial, it should not be entertained in non-malignant cases so long as a bougie can be passed, or a tube worn to enable the patient to take sufficient nutriment. But should the passing or

wearing of an instrument cause great irritation, while the difficulty in overcoming the obstruction is increasing, the operation may, I think, with justice be undertaken; for by it the affected parts are placed in a state of physiological rest, which tends not alone to the improvement of the part, but renders it more amenable to other forms of treatment.

2. In cases due to malignant obstruction, where the dysphagia is becoming both painful and more marked, if the permanent wearing of a tube cannot be tolerated, there should be no time lost in performing a gastrotomy.

3. In cases where the obstruction is almost complete, and where in non-malignant cases bougies cannot be passed, and before the patient becomes too much exhausted and the digestive functions vitiated, the surgeon is fully justified in urging the operation.

4. In cases where complete obstruction has existed for a short time, the patient's strength being fairly sustained by enemata, and there is no malignancy, the operation may be undertaken with hopes of improvement; in malignant cases, at this stage, it should not be urged.

5. In the advanced stage of complete obstruction, no matter what the cause be, the operation should not be undertaken, for the patient, if he survive the immediate shock from it, cannot live more than a few days, that are passed in increased discomfort.

Cold Water in Labor.—Dr. J. W. Trabert in discussing the value of the various devices advocated for facilitating the process of labor when the uterine contractions are inefficient, gives his preference to cloths steeped in cold water, wrung out and applied frequently. The credit of systematically advocating this procedure he gives to Dr. Garvin, of Louisville. He details several cases in justification of his preference, and thus describes the modus operandi:

"The following is the method to proceed: The water should be cold; it is not necessary always to have ice water, as Dr. Garvin suggests, but if convenient is preferable. A towel should be dipped in it and wrung until only sufficient water remains to wet the parts to which it is applied; this should be quickly placed on the abdomen, so that as much of the cold will remain as possible; the cloth should be changed every five or ten minutes, or as soon as it becomes warm."

CONTRIBUTIONS.

HYGIENE OF THE NERVOUS SYSTEM AND MIND.

Part II.

The Hygiene of Dyspepsia as a Nervous Disease and of the Neuropathic Diathesis.

BY C. H. HUGHES, M. D.

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Read before St. Louis Med. Society, Sept., 1884.

The necessity of hygienic measures in regard to dyspepsia are becoming more and more apparent every year.

We have become a nation of dyspeptics, not because we eat too much but because we work too much with our heads and too inopportunely. Fret and worry and ambition to get rich keep the brains of Americans over active. The precarious results of business, the gambling ventures in stocks and sudden reversals of business and recurring threatenings of panics and the feeling of insecurity which periodically possesses the public minds keeps the American brain constantly anxious and active to arrest impending failure or miscarriages of cherished enterprises, and the brain thus incessantly overworked and overworried, robs the ganglia of the sympathetic of their due innervation; the pneumogastrics too are impoverished and the innervation that belongs to the stomach through them and the solar plexus upon which a healthy quality and abundant quantity of gastric juice depends, is not received by it. The victim of dyspepsia is a victim of self robbery. The overstrained brain surreptitiously takes from the stomach what it needs for healthy function. It is not the bolting of food, so much talked of, that usually causes dyspepsia, but this voracious robbery of the brain, which takes all the nerve force of the body, which

brings dyspepsia to the ceaslessly active brain worker and brain worrier.

I have time and again seen men recover from dyspepsia while under treatment for an overworked brain, without a single remedy addressed to the stomach, recover under rest and recuperation of mind and those agencies which induce them.

Forty years ago the distinguished Amariah Brigham observed that "in a majority of cases, especially among students, dyspepsia is primarily a disease of the brain and nervous system, and before him the great Abercrombie wrote that "symptoms which really depend on disease of the brain are apt to be referred to the stomach."

The testimony of the thousands of watering places and mountain air resorts and sea voyage cures are witnesses of the fact that dyspepsia is largely a disease of the brain and nervous system. The changed home and scenery cure, where depressing cares are dropped and irritating environments are exchanged for agreeable mental surroundings and brain and nerve rest, is the surest therapeutics for the average dyspeptic.

If any one is dyspeptic let him relax his business and secure a rest for his brain, is a safe therapeutic axiom, and this suggests the hygienic procedures of preventive medicine.

If the salvation of the people from gradual as well as sudden destruction be legitimate subjects of sanitation, then the investigation and removal, so far as practible, of the causes of nervous dyspepsia are legitimate subjects for the efforts of physicians and sanitarians and it shonld claim attention of one branch of civil service reform. In all departments of the public service hours of work adjusted to the physiological endurance of the human nervous system and no more, should be enjoined and the time for rest demanded by the physiological necessity of the organism, should be secured to all government employes. The State could avert a good deal of insanity in this way.

The service of nervous dyspeptics, besides being a crime against nature, in a government that develops it in its employes, is never the best service and in times of national trial or peril, is not the kind of service to be relied on. All the causes, mental, moral and physical, of neuroatrophia, or malnutrition of the nervous system are legitimate subjects of study for sanitarian and physician and the prevention of premature nervous exhaustion in the people of the country is the collective salvation of the nation. A sound nervous system develops and fosters a vigorous optimistic patriotism, confident of the future of the country and capable of putting forth the essential energies to prevent natural decay, while pessimists are bred by illy-nourished and unrested brain and nerves and the conditions for the fulfillment of their sombre and fatal prophesies are in their nervous systems. Strong brains are the defensive and protective brawn of a people, whether in peace, war or pestilence, and a wise people will continually foster a judicious nerve sanitation. A well nourished nervous system is the foundation of personal courage, and endurance, and in a whole people it is the best security of the prosperity of the state. The conditions and attendant vices of our present civilization tend to undermine nerve-stamina, and sanitatation should address itself to arrest the individual and national nerve disintegration, which is in excess, in so many occupations, over recuperative conditions and physical regeneration.

There are too many insane, idiotic and feeble minded people in this and other civilized countries.

A proportion of one to every five hundred people annually falling mentally maimed in the battle of life is too large. The neuropathic diathesis and the insane temperament is becoming the fatal heritage of too many of our people; there are too many brain-work and nerve-degenerate victims strewing the pathway of our progress.

Unstable nervous systems are everywhere, and they often wrongly influence public thought and state legislation to the detriment of the race. Cranks and intellectual squints and obliquities, inheritors of neuropathic tendencies, from the vice-ambition or misfortune-perverted brains of an overtaxed ancestry abound, instead of that nervous stability which, like righteousness, exalts a nation and without which a vigorously righteous people can not be made, but in lieu of which will exist a sickly moral sentimentality running after unfounded moralisms and pathies and driven by every wind of spurious doctrine. To be logical, brains must be strongly endowed. Cramming and straining of brains, especially such as are not uncommonly well endowed by nature, give activity but not power, and all systems of education which disregard individual capacities that come of unstable neurotic endowments are vicious; all methods that disregard the want of the brain for rest and recuperation are vicious; all plans which seek to draw out all the powers of a growing child, leaving no reserve force daily for building up the growing brain into its possible proportions of beauty and power, are wrong and must and do result in ruin.

The wants of the evolution period of the nervous powers in the human economy can not be ignored, without arrested development and stunting of the mind and body, or more properly speaking the body; the mind is for all practical purposes, the body, its capabilities and powers, being dependent upon the quality and tenacity of the brain texture. (*Mens sana in corpore sano, and vice versa.*)

Education should repress tendencies as well as draw out powers, and to do this it is not moral platitudes that are demanded, but the training up of the organism in the way it should go, by the light of neurological and psychological law; by regarding the physiological wants of the growing brain, letting it rest when it needs rest and feeding its powers during the process of evolution of the higher centres of the thought layers of the cerebral certex, as well as of the basal ganglia, and by looking to the abundant nutrition, and daily repair of the ganglionic system which presides over the functions of inorganic life and this part of education is not one of object lessons or of words, but of true physiological training by supplying the growing organism with the chemical elements of nerve repair richly and without stint. No Dotheby Hall plan of richness will suffice, but the true cream of nutrition for the brain and nerves as fast as they feel the famishing influence of disintegrating work.

The proper building of a brain, with its wondrous powers and possibilities, is the grandest work that can engage the attention of education, but the chief aim, or at least the principal effect of our present unphysiological systems is to exhaust it.

Even the violinist will look well to the tone of his instrument, and to atmospherical conditions, before he attempts to use it, but the average educator treats the harp of a thousand strings regardless of the conditions of keeping it in tune, and as though, despite the worst ill usage, it would keep in tune forever.

It is a long time since Grotius wrote "the care of the human mind is the noblest branch of medicine," so long that, like all other medical facts long ago promulgated, it has become common property, and the care of the mind should be the chief concern of the people.

History shows us how nations have perished and been blotted out by reason of degeneracy of the brain and nerve organization, and how people, once masters in war, have grown powerless or passed into third rate powers among the nations. "Greece, Rome, Carthage, where are they?" And why are they not as of yore? And Spain and Mexico how changed. And other nations saved from absolute extinction by revolutions bred of unstable neurotic organizations, by which, in blood and carnage, hordes of neuropaths have been destroyed, and the neuropathic degeneration of the nation has been stayed through the regenerating war permitting only of the fittest to propagate a fitter race to longer life.

No regenerating revolutions have yet swept over our land, save the late unhappy war with the South, itself born in my humble opinion of unstable passion, which, with better brains and steadier nerves, might have been averted, and we should have a care lest by carrying the forcing process of our public school and collegiate systems too far without due regard to the recuperation and growth in steady brain power of our children and youth, we fit the rising and coming generations for the repetition of ensanguined history; for revolutions and wars must needs come, like pestilence and famine, to fit the survivors of an unfit people to live. As waste precedes repair and is a condition of it, in brain or muscle, and as it is the condition of the display of power in physics, so in the human economy the ordinary waste may give place to extraordinary destruction, that what is most physiological in a people should be separated from the pathological and it be thus made possible for a nation by the rejuvenation of revolution and war to live out its destiny.

We see in our own day individuals stricken down in their prime, with preventable brain and nerve destruction, and it is fortunate for the welfare of the race that so many die prematurely without leaving behind greater multitudes than there are dowered with the fatal tendency to break down early in life in brain and nerve. Yet too many, like Dean Swift, begin to perish at the top, even before middle life. Greeley, President Johnson, Vice-President Wilson, and hosts of others, whose names occur to you among the not remotely dead tell how very prone the brains of our public men are to break down under the strain of life's demands.

The hygiene of the mind and nervous system should be such as to make these too common occurrences exceptional. Men should know that blood vessels kept over full by habitual and too prolonged mental excitation, aided by over stimulation of the heart by alcoholic indulgence, must sooner or later end in pathological dilatation of brain vessels, in serous exudation, or in rupture, or in heart

failure or hypertrophy and their fatal consequences. There is a limit to the capacity of of the brain or of any other organ of the body for labor,without ample rest and repair, even as there is a limit to the capacity of inanimate machinery less intricately and wonderfully wrought than the mind to endlessly work on.

Nations and states and communities have need of quarantine against the hordes of neuropaths that hover about, or fill high places or go about in public, ready, like dynamite bombs, to explode under slight, sudden pressure and destroy. The Guiteaus and Booths and Lawrences who shoot at Presidents, in times of public political excitement; the Passenantes and Hadfields, who make Kings the mark of their unprovoked vengeance; the Freemans and Smiths who make tragedies of child-sacrifice to delusive inspiration, like the horrors of Pokassett and Westminster and murder and arson and crimes innumerable and nameless, are often only possible through predominance of insanity or the insane temperament, the spread of which is more to be dreaded in any community than the worst of physical pestilences, for its baneful work goes on from generation to generation; through it infants now just suckling at the breast are predestined to slay her who gives the child its first life sustenance; through it, babes just born are strangled by mothers in the throes of puerperal mania; through it fratricides and patricides, otherwise impossible, are done, and many of the most horrible and awful of crimes, which in the public press daily keep our thoughts on blood, are possible. It is a great good fortune for the perpetuation of the average stability of the race that so many who are possessed of the insane temperament early commit suicide and that, possessed of feebler resisting power to morbid disintegrating forces, they die prematurely, or before propagating their species, of intercurrent diseases and before others are made the victims of their fatally unstable heritage. When the neuropathic diathesis has developed into insanity in its aggravated and dangerous forms, society is willing to house the lunatic and let him out again when he ceases to be harmful, but an insane man is never harmless to society if he be in the prime of life. If he be married or likely to marry, the reason is obvious and all the more harmful will he be if a victim of that doubtful undemonstrative kind of insanity whose existence is so often denied?

Insanity and the insane temperaments are therefore subjects of the greatest concern to any people, of the utmost importance to communities as well as to families. A matrimonial alliance once formed with an impending lunatic means the founding of a family with a tendency to brain degeneracy, and the likelihood of a progeny of cranks, or feeble minded or over active and unstable eccentrics or positive lunatics, and the individual and the state must suffer. Our modern civilization does not justify the radical measures which would have occurred to Lycurgus had he been confronted as we are, with the fatal ravages of the insane temperament; but law can and must, if the nation is saved, do something more than simply corral the physically dangerous lunatic in asylums, which is now the present tendency.

A certain degree of exemption should be proven, sufficient at least to give a reasonable chance of regeneration, before marriage contracts are sanctioned.

Positive lunatics of course should be forbidden marriage, and marriage should be forbidden to confirmed drunkards, for drunkenness breeds hereditary epilepsy, dipsomania, imbecility and insanity.

The instructive typical family history given by Morel, of immorality, alcoholic excess and brutal degradation in the first generation, followed by a record of hereditary drunkenness, maniacal attacks and general paralysis in the second, hypochondria, lypemania, systematic mania and homicidal tendencies associated with sobriety in the third, with feeble intelligence,stupidity and mania in youth and transition to complete idiocy and extinction of the family in the fourth generation, is not more instructive than the history the writer has given of the O. Z. family, (Vide Alienist and Neurologist,) where from the early intemperance of the father though reformation subsequently followed in the father, all of the immediate descendants are neuropathically endowed, one child having been first nymphomaniacal,then generally maniacal and demented, another maniacal, a third dipsomaniacal and morally deranged, a fourth epileptic, the fifth markedly hysterical and gangliopathic and the sixth, still a youth, markedly neuropathic.

The peril of the race from the increase of the neuropathic diathesis should set us all to thinking, and those who have the authority to acting in the direction of self preservation and indirectly of the ultimate life of the nation. The multiplication of hospitals for the insane and of inebriate asylums and of schools for the feeble minded, and improved methods of treating nervous diseases and of homes for impoverished neuropaths of every

grade, from the hospital for nervous diseases proper to the alms house where many of these wrecks are lodged, does not cure the evil, though they serve to hide it somewhat from public sight. We best provide against the spread of small-pox by general vaccination, not by numerous pest houses, so by general preventive sanitation can we avert the threatening spread of the now prevalent and growing diseases of the nervous system.

The neuropathic diathesis, the insane constitution that breeds its like and burdens the State with hereditary imbecility, idiocy, insanity, deaf-mutism, and the lesser degrees of mental defects, must be made the subject of statutory enactment and enforced law; sentimentality must yield to fact; the teachings of nature must be decided and as sternly enforced as her own unerring edicts are. Why should confirmed drunkards be permitted to beget a race of imbeciles, epileptics, idiots or criminals? Why should the life-long criminal and the pauper be allowed to go on reproducing his defective kind, the lunatic likewise, and all the mentally maimed of whatever degree, especially when by forfeiture of liberty they fall under proper custody of the law; and why should generation after generation of these miserables be allowed to be brought into being to become either burdens of the state or victims of its misdirected vengeance, when prevention is possible, and better for the state, and only justice to the helpless and prematurely doomed to an unchosen existence worse than death? If municipalities may lawfully quarantine yellow fever and cholera, why may not, and why ought not,this greater destructive agency than plague or pestilence, which never ceases its ravages—the hereditary descent of the organically vicious and defective—be stopped by law? No pestilence that ever walked in darkness or destruction that has wasted at noonday has done greater harm to mankind than the silent, ever active destructive power of hereditary degeneracy of brain and mind. Instead of visiting punishment on the heads of these weakened victims of entailed disease, let law go to the *fons et origo*, and stop this vicious progeny from being thrown upon a world in which they are unfitted to live.

More than a century ago Cabannis said: "As the liver secretes bile and the stomach gastric juice, so the brain secretes thought," a proposition exact enough for comparison, and as a working basis for sanitary legislation, for,though thought and mind are probably something more than secretion of the brain, mind is dependent for its every normal movement upon the integrity of the brain and wrong, and misleading thought will be evolved if the physical subtratum of the mind—the human brain—is out of order. The duty of our day is to see that, so far as practicable, we transmit to our descendents healthy brains and vigorous nervous systems, and to this end personal endeavor and municipal legislation should be invoked. A true civilization should show development and not degeneracy of brain power, and the proudest monument to our wisdom we can rear would be one of neurotic regeneracy, a richer legacy to the coming generations than railroads or telegraphs, phonographs, or telephones, electric lights, or ærial navigation successfully accomplished, for without neurotic regeneracy these blessings will prove curses and promoters of still further neuropathic decay, and final extinction of mind. To enjoy these, power of the nervous system and mind should be increased, not diminished; yet in them, and the press, injudiciously used, are the seeds and elements of destruction.

Let the present generation, with all of its advancement and advantages, have a care for its strength of brain and nerve, and the brain and nerve strength of those who are to follow it.

THE RELATION OF NERVE TO MUSCLE —BEING THE BASIS OF ANTIPYRETIC TREATMENT IN FEVERS AND INFLAMMATIONS.

BY R. E. HAUGHTON, M. D., INDIANAPOLIS, IND.

Read before the Mississippi Valley Medical Society, September '84.

[CONTINUED.]

The object of this paper is to endeavor to show the physiological and pathological relations of nerves and muscular systems in the question of temperature in various forms of disease, especially in general and specific fevers, including alforms of acute or sthenic inflammations, and thus to state the causes of increased temperature as recorded by the thermometer, thus giving us an intelligent and yet comprehensive method of treatment which is known as the anti-pyretic treatment. Also to find a physiological basis of interpretation for remedies as well as the proper physiological indication for their use in the states before mentioned. Included in this view we hope to be able to discuss the antagonism of remedies to each other, and also the antagonism of remedies to disease and disease to remedies.

I have discussed some of the relations of nerve to muscle, and now shall endeavor to widen and

expand that thought beyond what was there conceived or comprehended in these relations. The opening statement of that paper was to show how blood supply to tissues is controlled and affected, viz., the cause of the dilatation and contraction of blood vessels, the influences which cause increased or diminished blood pressure as affecting function of structure, and also to show that in the varied or changing states affecting vascular organ and blood supply, we have a rational and intelligent explanation of many local disturbances which are known as hyperemia, congestion, inflammation and fever.

In addition to all this we shall also find a basis of indication and comprehension for the use of remedial agencies affecting nerve centres which shall control blood supply, increase or diminish blood supply or heart pressure, modify, inhibit or control muscular action, as found in heart beat, heart rate, also as found in spasmodic action, convulsions, puerperal or infantile, strychnia poisoning, tetanus and all other spasmodic action from whatever cause it may proceed.

Proposition 1. Muscles are divided into two general classes, viz., striated and non-striated, voluntary or involuntary.

Proposition 2, The contraction of muscular fibre is a limited and definite amoeloid movement, in which intensity and rapidity are gained at the expense of variety and power.

Contraction of a muscle is in the form of a wave, three to four meters per second. Stimulation of muscle or fibre passes from the point stimulated along the muscle, diminishing in vigor as it proceeds. The velocity of the wave of contraction, is increased by an elevation and dimished by a lowering of temperature. The length of the fibre or the muscle is about 30 to 40 metres, so that it is evident that when the stimulation begins the whole fibre or muscle is not only in a state of contraction but in the same phase of the contraction wave. Nerves are found to enter the muscle at about its middle, so that nerve stimulus or force passes both ways along the fibre. It enters by end plates within the sarcolemma or sheath, so that the muscle may be found in both conditions, tonic or clonic spasm. From this we derive the law of contraction, viz., a nervous impulse is generated at any point of a nerve when there is a sudden change from a lower to a higher irritability. The deduction from this is as follows, viz., as far as we know natural nervous impulses are identical in character with the impulses induced in a nerve by artificial stimuli, the inherent irritability of muscular fibre excepted. Nervous impulses are in series, being about one-nineteenth of a second between them. Hence the variations in the energy and extent of muscular contractions depend upon the energy of the individual nervous impulses, as they originate in the central nervous system. When stimulus is repeated more frequently than is necessary, the constituent contractions are still proportionately increased in frequency, so that the stimulation may be so powerful that the muscle simply obeys the power which controls it in tonic spasm as in infantile or puerperal convulsions or in the more clonic form of tetanus or in poisoning by strychnia, etc. This fact now stated will be fully comprehended when we remember the law of nervous impulses, viz., "During the passage of an impulse along a nerve fibre, there is no augmentation of energy or force, but when passing the grey cells of the brain or other centers the energy or force is or may be very greatly augmented." This shown by the increased pitch of the muscular sound as well as in the convulsive energy of the muscle. This is easily enough demonstrated by watching the pitch of heart sounds and the intensity of the muscular contraction under an increasing battery current passed through a muscle. I mean an interrupted or Faradic current.

Dr. Wollaston attempted to estimate the frequency of the elementary contraction that produces the susurrus and reaches the conclusion that it was 35 or 36 per second, and the least frequency as low as 14 or 15, while in general it was 20 to 30 per second. Prof. Houghton of Dublin has examined the question and practically reaches the same conclusion as to the frequency of muscular contraction and further finds that by experiment of musicians they found that the note of the susurrus was as fixed by two groups of investigators, CCC and DDD respectively, that is two octaves below bass C and D, and these notes of the musical scale correspond to 32 and 36 vibrations per second, The question very naturally arises, viz., how far can the increase in the frequency of the contractions be carried by increasing the stimulus. But this question very obviously involves two other problems.

1. How frequent are ordinary or normal nervous impulses?

2. What is the limit to which the duration of a stimulus may be reduced without ceasing to produce a nervous impulse and as a result cease to affect a muscle?

3. To what extent may the frequency of nervous impulses be increased by stimulation without the muscle ceasing to respond by a contraction to each nervous impulse?

We must suppose that there is a limit to the duration of a stimulus and that the limit would vary with the character and vigor of the stimulus. So we conclude in the latter case if the stimulus is maintained as in the grey cells the stimulus is multiplied indefinitely, thus we have a reason for the existence of tonic or clonic convolusions according to the nature of the producing cause.

We come then to the question of exhaustion of muscle, which means exhaustion of both nervous and muscle irritability, hence the danger in fevers, in inflammations, and also in continued convulsive action. Rapid contraction under high temperature, as in fevers when the heart is over stimulated, is loss of its power and the great danger in high temperature of fevers is debility of heart action failure, of its power and death by asthenia. This loss of power begins in the nerve centers and affects the muscular structure of the heart, so that often if a patient is raised to a sitting posture in the late stages of fever it may produce death by failure of its power. This exhaustion is more rapid in the nerve centres than in muscles. When there is a rise of temperature there is found to be increased molecular activity in all the structures of the body, hence molecular waste is a result, and thus in the greater amount of the excreta of a body, as shown by a quantitative and qualitative estimate, we have the measure of waste, or oxidation of tissues. All molecular processes are hastened under a high temperature, and this proved by the amount of solid elements increased above that in health. Influence of blood supply in its influence upon nervous and muscular irritability is reduced to the agency of one factor, viz., oxygen. When this is not supplied it loses its power for nutrition, the nerves and muscles lose their irritability and become rigid.

"The degree of heat and waste in every febrile disease are represented by something. Every tissue is wasting and there is some correlation between heat and waste and it is expressed in the "excreta." Dr. Haughton, of Dublin, and some others estimate two grains of urea per pound weight of the body as the mimum of vital work alone in the body. Dr. Darry had clearly enunciated the fact "That undue elevation of temperature is some criterion of the intensity of the diseased action." As a general rule the correlation of pulse or heart rate and temperature may be stated as follows: "An increase of temperature of one degree above 98 degrees F.," corresponds with an increase of about eight beats of pulse per minute

DEGREES.		RATE
That is 98	to a pulse of	72 pulse.
99		80
100		88
101		96
102		108
103		112
104		120
105		128
106		136

Here is shown a correlation between heart and pulse rate and temperature and we shall endeavor to show the relation which is induced by increase, pulse rate to the increase of temperature —in disease—as making a relation and correlation which has not yet been fully comprehended, and so far as I know has not been worked out as a basis for the anti-pyretic treatment. While men are beginning to deny and ignore the facts of treatment in the reduction of temperature, we find that there is a relation or correlation which is capable of being expressed in formula so as to guide us. "The facts which have been carefully observed by Parkes, and confirmed by Vogel, Heller, Darry, Wunderlich, Jones, of New Orleans, now justify the conclusion, 1st: "That increase of temperature may be attended with increased elimination, and therefore, presumably with increased tissue change."

2. "That diminished excreta in fever are to be referred to retention of such excreta, and not to a want of formation, and that while the amount of excreta (capable of being measured), may be in fact small the amount of tissue change may nevertheless be great." "The excreta may be very large, notably in 24 hours, in a case of pyæmia by Vogel, 1235 grs; in a case of typhoid fever observed by Parkes, 885 grs." "The largest amount of uric acid in a febrile disease in 24 hours, by Parkes and Garrod has been 17.28 grs." "The amount of tissue destroyed in order to furnish such quantities of excreta must be enormous, and when it is recollected that little or no food is taken by fever patients and that therefore no materials are supplied for the reconstruction of tissues, thus being oxidized three times more quickly than in health producing, rapid loss of weight in fever and the impaired nutritive condition of every organ at its close will be at once evident." (Aitken's Pract., page 265.) Now having said so much upon this phase of the question we pass to the consideration of other questions, whichhave relation to the temperature in health or disease. "Virchow, in his definition of fever states, "That the essential phenomena of fever must have their immediate cause in changes of the nervous system." "The existence of a thermogenic, or metabolic mechanism in many respects comparable to the vasomotor mechanism."—Foster. Or to various other processes which are controlled or presided over by nerve centres are believed to exist by physiologists and pathologists and indeed many experiments go very far to prove it." Pfuger has shown by experiments that the mechanism is of a nervous character, as warm-blooded animals, in which the action of the nervous system is suspended by urari, or section of the medulla oblongata, behave like cold-blooded animals" in regard to heat or cold." The result of injuries to and diseases of the nervous system point in the same direction, and Brodie long ago called attention to a rise of temperature after injury to the spinal cord, and contended for a direct generation of heat by means of the nervous system." Without going over the experimental ground we formulate what has been done by saying: "There is now the generally received physiological law, viz: "That nerves regulate the metamorphosis of tissue and the production of heat which are both greatly altered in fevers. (Hemholtz. Ludwig. and Bernard-Heidenhain), from Foster.

2. The experiments upon the vagi-nerves—which cause febrile phenomena as increased cardiac action, pulmonary congestion, anorexia and nausea, and

3. "The arguments derived from the various symptoms which announce, accompany or terminate fever, among which most prominent are the increased rapidity of heart's action, relaxation of vessels, which follows the cold stage or stage of contraction. Finally the periodicity of some of the phenomena and the abnormal state of secretions."

Heart and pulse rate, inversely as to blood pressure. The heart is a force pump, which, by a power which is usually called muscular, circulates the blood and injects from 4 to 6 ounces of blood into the aorta at every contraction or systole of the ventricles, as each ventricle must send forward the same amount of blood if the circulation is kept equalized. "The vital problems, are those which are connected with such causes as determine frequency, force and character of beat." But we find at this point, that the heart is under control of the nervous system, so that it can be inhibited or accelerated by the action of the nervous centres, as may be required. so that more or less blood can be sent into the vascular system as circumstances may require. The vessels may be dilated or contracted by the action of vaso-motor centres, which is the same thing as inhibition or acceleration, and this is a nervous mechanism, which contracts the blood vessels, or dilates them, as may be necessary. Hence the law of inhibition and acceleration of blood, is a nervous and vascular mechanism, to regulate blood supply, and blood supply is at once under the control of heart and vessels, going at either an increased or diminished rate and with an increased or diminished force as well as frequency.

[TO BE CONTINUED.]

THERAPEUSIS WITH HYDROCHLORATE OF COCAINE WITH CASES.

BY S. POLLAK, M. D., ST. LOUIS, MO.

Read before the St. Louis Medical Society, November 15, 1884.

I beg leave to make a few supplementary statements to those I made last week on the "Therapeusis of Hydrochlorate of Cocaine."

My supply of the drug was so small, that I had to be very chary with it, excluding all cases not requiring painful manipulation. My stock having been replenished I shall use it liberally in all cases manifesting photophobia or blepharospasm. I apply it not only when instruments have to be used, either for examination or treatment, but also when the pupil has to be dilated in order to examine the interior of the eye. I found also that one-half per cent. solution is sufficient in most cases, so that my supply will go a greater distance.

I stated briefly, after reading my paper, that I operated on that day on case

8. of double convergent strabismus in a girl aged 15, assisted by Dr. Tandy. One per cent. solution was instilled in one eye, one-half solution in the other eye. Anesthesia ofconjunctiva and cornea complete. The application of speculum was not resented, and the seizure with fixation forceps not resisted. Not until the internal rectus was brought up on the hook did she complain of little pain, but then the operation was finished.

I at once proceeded to do the same on the other eye, without the least resistance or pain, although the strength of the solution was only one half.

9. On Monday, Dr. Heidemann desired me to see an aged lady of 68, who was suffering excruciating pains in her left eye. It was a typical case of glaucoma of many months standing. Blindness total, no perception of light. I concluded to perform Hancock's operation, which consists in a paracentesis of the bulb with division of the ciliary muscle to relieve pain. A cure was not to be thought of. The bulb was very sensitive to the most delicate touch. Two drops of a four per cent solution of H. C. rendered the eye anesthetic and the operation painless.

10. In conjunction with Dr. Alt in a case of double cataract in a boy of 14—a soft cataract in one eye, a shrunken capsule in the other--discision was made in the first, drilling a hole in the capsule in the other. In both two drops of muriate of cocaine were used. "This did not hurt" was the remark of the boy, after the operation.

11. A case of double soft cataract, also with Dr. Alt, in a colored girl of 10; discision under the use of muriate of cocaine was performed with good result and without resistance or pain.

12. Strabismus in a girl of 10; assisted by Dr. Jones, U. S. N. A very sensitive conjunctiva was promptly anesthetized with a one per cent. solution of H. C., and strabotomy performed without let or hindrance on part of the little girl, although her father fell down in a swoon while witnessing the operation.

Following the example of Dr. Bosworth of New York,I resorted to the H. C. in a case of

13. Acute coryza in a young nun, a teacher in a parochial school. The nasal cavity was much stenosed on account of the venous turgescence of Schneiderian membrane, and superabundant fetid acrid secretion, rendering frequent blowing of the nose necessary and wiping painful. A little absorbent cotton wrapped around a probe, and dipped in a two per cent. solution of H. C., was introduced into the nasal cavity and brought in contact with a large surface of the mucous lining. An immediate contraction of the membrane, by the emptying of venous sinuses was the result. The cherry-colored membrane became pale. The nasal cavity was clear, and susceptible of rhinoscopic inspection. It was analgesic to pretty rough manipulation. It remained free and dry the entire day, and she could sleep with the mouth closed. It did not recur until the next day in a minor degree, when another two per cent application again gave her entire relief. She has not returned since.

14. A case of chronic ozena with very fetid breath, probably of a syphilitic origin; the septum displaced laterally,one nostril considerably stenosed and usually occluded with dry crusts. From necessity or habit the patient is constantly blowing and wiping the nose, which makes it very sore. It bleeds at the least provocation rendering proper cleansing difficult, painful, and therefore not as often as it should be. A liberal application of H. C.—8 drops in 20 minutes—completely anesthetized the nasal cavity; a thorough cleansing was then an easy task. The cavity was well ventilated, odor less fetid; sense of smell was entirely obliterated, most likely from the H. C.

15. A girl of 5, with purulent otitis media, frequent paroxysmal pain, high fever,

sleeplessness. Douches of hot water gave only little relief; instillation of atropia none at all. This induced me to try the effect of H. C. After instillation of two drops twice in an interval of 5 minutes—one per cent. solution, gave prompt relief; the child went to sleep immediately and did not awake the whole night, an event which had not happened for more than a week.

16. Tinitus aurium not complicated with impaired hearing nor vertigo was quickly quieted by a half per cent solution of H. C.; only 2 drops were instilled, it remained so for nearly an hourf and was again arrested for 4 hours, on repeating the H. C.

NEW YORK LETTER.

New York, Nov. 24, 1884.

Editors Review: A remarkable case of pistol-shot wound of the abdomen, with operation and recovery, occurred recently at the Chambers Street Hospital. Eighteen hours after the injury an incision was made, in the line of the external wound, to ascertain positively that the ball had entered the peritoneal sac. This having been done laparotomy was immediately performed, which disclosed a small amount of blood, and seven perforations of the intestine. The peritoneal coat was sewed together over each perforation, thirty four silk ligatures being used, and the sac cleansed.

The patient subsequently developed peritonitis, but under opiates he speedily recovered and in ten days was out of danger.

A case of removal of the spleen occurred recently at the Woman's Hospital which proved less favorable to the patient. It is interesting, because the operator claims it to be the first operation of the kind in the country.

Upon opening into the abdomen, the intestines were found extensively adherent to the enlarged spleen, and in the attempt to detach them by removing portions of the capsule of the spleen, the hemorrhage was so profuse that the patient nearly succumbed upon the table. The operation was accomplised, however, although the patient died in thirty-six hours from shock.

Not a little anxiety is felt among the thoughtful classes, lest we have an invasion of cholera in the coming spring. It is said that the occurrence of a simple case of this disease, inside of quarantine, would incur a loss of millions of dollars to the city. So great has been the apprehension Dr. W. M. Smith, Health Officer of the Port, on the twentieth of this month ordered a conference of Sanitarians, which met at the Board of Health rooms.

In considering the best methods of preventing the introduction of cholera into the United States it was agreed that bichloride of mercury was an excellent disinfectant as well as the exposure of movable objects to a very high temperature in a dry atmosphere.

Only last week a case of yellow fever died who had escaped quarantine. An autopsy was held at Bellevue Hospital and the specimens lectured upon by Prof. Janeway. The liver was of a lemon yellow color, the intestines somewhat inflamed and full of a tar-like substance and the spleen normal. The doctor laid particular emphasis upon this latter fact in his differential diagnosis.

Prof. Francis Delafield of the College of Physicians and Surgeons has been giving some very interesting and elaborate illustrations of pathological specimens by aid of the calcium light. These demonstrations are to be continued from time to time in connection with his didactic course. The doctor is a faithful teacher and hard worker; he now occupies the chairs of instruction formerly occupied by the venerable Alonzo Clark.

We have been highly entertained by the clinical lectures of Prof. Seguin, teacher of nervous diseases in the same institution. The doctor is an able and profound thinker. Speaking of syphilitic lesions of the brain he recommends very large doses of the saturated solution of the iodide of potash (ʒj to ʒiv per day) especially in those cases of obliterating arteritis as manifested by monospasms and epileptiform seizures. He believes also that many of the bad effects, such as gastric derangement, usually attributed to the use of the iodide, are caused rather by the drugs usually combined with it; he therefore recommends the clear solution.

Speaking of paralysis agitans he said that he had found hypodermic injections of hyoscyamia(Merck's) to control the spasms temporarily, oftentimes one one-hundredth of a grain being sufficient. This of course is not permanent, but it proves of great service to patients who have been debarred from society on account of the disease.

Although recent post-mortems go rather to prove it is entirely functional, he is from theoretical reasoning led to believe that after more extended researches a cerebral lesion will be found. He thought that the rhythmical contractions were best explained by the existence of a cortical lesion giving a continued series of discharges. This theory is

assisted to by the hemiplegic character of the disease.

We are just in receipt of the first annual report of the Wayside Day Nursery, another benevolent institution for the assistance of the deserving working women and their children. The latter are carefully cared for and fed through the day and medical services rendered free, a charge of five cents being required for each child per day.

The sixty-fourth annual meeting of the New York Eye and Ear Infirmary, recently held in their building, shows the institution to be in a very prosperous condition, over 53,000 visits having been made to the hospital by patients.

We are indebted to Mr. G. W. Lincoln of the firm of Reynder & Co. for calling our attention to a new thermometer, called Hicks' muriate thermometer. The bulb is made slender and long so that the register will reach the high point quickly. This will certainly be highly appreciated by physicians with a large practice.

Dr. Thomas exhibited before his class an ancient instrument, found among the relics of an old French family, supposed to have been used in the middle ages by some knight to protect the chastity of his wife while away upon a crusade. It consisted of metal covered with red velvet, the essential principle being that of a "T" bandage having an orifice for the discharge of the fæces and the menstrual flow, the opening for the latter being guarded by cunningly devised teeth projecting inwards.

During the excitement of the recent political parades "Ye festive" medical students reassured the public that "plug" hats are not "born to blush unseen," much less their owners. Large numbers were represented from the several colleges. J. W.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

REPORTED FOR THE REVIEW.

[CONTINUED.]

Dr. Dean.—We had another case that I happen to think of which is exceedingly interesting, the most interesting case that I ever met with of multiple fibroma; a matter which has been studied up in the last few years, especially by Recklinghausen. This man was covered on almost all parts of his body by tumors from the size of a millet seed or very small pea up to tumors two inches and a half in diameter, and one conglomeration of twenty or more in the righ axilla measured probably four inches in its longest diameter and two inches in depth and two inches across its shortest diameter. He had one or two upon his face; none on the soles of the feet; none on the palms of his hands; and only one, which was a recent one, between the fingers. Recklinghausen reports two cases very minutely; I thought unnecessarily so, but since seeing this case I have realized the importance of this minute description. We have worked two hours on the post-mortem and it will require perhaps two or three hours more to complete it. The existence and origin of the multiple fibroma is somewhat disputed. Recklinghausen thinks they start from nerve sheaths, near the terminations of the nerves in the skin and subcutaneous tissues, and he has found that the nerve fibres pass through them, and that they are in the first place frequently neuromata, then become fibromata and in some cases the cellular growth becomes predominant at a certain stage and the fibroid growth ceases to form after that time and they become, histologically, structures quite different from what they were originally, or sarcomatous; and some become melanotic in part, jet black in part, as if colored by acid. I consider this case of great interest. We had counted 175 or more of these tumors before we were three quarters through. The history of these cases usually is that the tumors are present from birth or from early infancy, and the extraordinary fact in this case is, according to the young man's statement, that the trouble has existed only about two years. The case under Recklinghausen's observation died from hemorrhage of the lungs. I shall work up the microscopical feature of the case and report to this society hereafter. I would say still further that we have a beautiful case of multiple xanthoma at the hospital. If there is any gentleman interested and would like to see this case we would be glad to have him call. Dr. Hardaway reported this case before the American Dermatological Association. The case came to the hospital eight or nine years ago. The patient then staid there one month and he had a somewhat enlarged liver. He was bronzed on one side and yellow on the other. He was discharged as a case of chronic hepatitis. When he returned this time he came back with tumors over almost every portion of his body. His skin was very yellow; his liver enlarged. It is a very interesting case. This is one of the tumor affections of the skin that is very interesting.

It was once thought to be some liver trouble, but now these troubles are simply supposed to be coincident. I am working at the microscopic side of the pathology of the case.

Dr. Bremer.—I would like to ask Dr. Dean what became of that negro we saw there who claimed to have been paralyzed in consequence of a rock falling on his leg?

Dr. Dean.—It was all a sham. We tried the battery again next day on the man,but we had to be very careful about its use; he was very sharp and was curious to know whether we were trying to punish him or simply to prove that there was nothing the matter with him, and whether we thought there was nothing the matter with him. He got well in a few minutes, however, and was anxious to get back to the work-house. He only came up to the hospital to try and get away and I told the assistant to be cautious, as the doctor's certificate is the dodge in penal institutions.

Dr. Bremer.—I never saw a man with more powerful muscle; he was about 31 years of age. While working in the quarry a rock, as he avers, fell on his leg, the inside of his thigh. He was then still able to work but they put him in a cart and hauled him up to the house. In consequence of this he pretended that he had lost the use of one side.

Dr. Dean.—He pretended to have lockjaw first.

Dr. Bremer.—He said that the doctor had been sticking needles into his leg and he never felt it. He played his part so well that when I violently pinched him and pricked him with needles, he never flinched, but I observed at one time that he shrugged both his shoulders. After conversing with him a little time longer I asked if he couldn't elevate his left shoulder; he said no, he couldn't, he was paralyzed on that side. I then made up my mind that this was a case of malingering. There was another feature about it,a tetanic contraction of the quadratus femoris; his leg couldn't be bent by force. The next morning, however, the leg was in a comfortable position. It is not possible for a man to keep his leg extended for twenty-four hours; he will give that up. He may feign paralysis but he cannot feign contraction for such a length of time. Well the battery decided the question; he felt decidedly improved when a very strong current was employed; he thought that he could get well, and so it seems he did. There might have been a supposition, that,what at one time was very popular with the profession, reflex paralysis, had occurred. This kind of paralysis is now falling into disgrace. There is not so much heard of reflex paralysis as there used to be, and it would certainly be very strange if a patient struck with a rock on the thigh were to be paralyzed on that whole side of the body. We inquired whether there had been any injury of the head and there had been none whatever.

Dr. Dean.—I playfully asked him if he had examined the fence, and he said that he was man enough to work out his fine. He wanted to get away from the battery. These people are cunning enough to want to excite the sympathy of the public. We had one case, which Dr. Dorsett may remember, in which a desperate murderer was brought to the hospital and I made up my mind very soon that a good deal of his pneumonia was feigned. I sent to the jailer and told him that if he had any idea that the man was not able to get out and over the fence, if he had an opportunity, I wanted to disabuse him of that idea; so that if he got away I didn't want him to hold us responsible; but he might rest assured the man would pretend to be worse if remanded to jail. He then took this man back to jail and some of the newspapers wanted to know if Dr. Dean was an inhuman man, for Dr. Somebody had said he was. He told me when he was at the hospital that he was getting better. He was on the lower floor and he thought it was a good position to get out whenever the guard happened to be out of the way. Subsequently while on trial in the court, sitting near his wife,he killed her and himself, too.

We had another case; a woman who couldn't speak. I was satisfied that she was malingering,but I was anxious not to have her think I was punishing her. After applying the battery with some force so as to make it painful, I said to her that it was not always possible to cure these cases by using a great force of electricity; that lighter shocks were better, and if so in her case, to indicate by yes if the light shock helped her most. She said "yes" in German, in response to a light shock; and then of course I had the woman where I wanted her and applied the battery more vigorously, and all at once she commenced cursing the policeman who had knocked her down and misused her and I never heard a woman talk faster in my life.

Stated Meeting, November 15, 1884.

On motion of Dr. Edward Borck, the courtesies of the Society were extended to Dr. F. R. Guibor, of Jefferson County.

Dr. Guibor.—I have a case which I desire to present. On September 20, 1883, I first

saw the patient, a boy seven years of age, and lanced a tumor on one of his arms. On February 15, I called again and was informed that the patient had been vaccinated by a regular physician about two years before and that the wound on the arm had never healed. It was about the size of a silver half dollar, bled at the slightest touch, and presented the appearance of a large strawberry. A scab forms occasionally, drops off and then reforms in spite of all treatment. The family history exhibits no hereditary predisposition. The boy had no appetite; bowels constipated; slight fever every evening, and rested badly. Urine scanty and red, no tenderness over the kidneys. He got mild chloride of mercury with nitrate of potash, and after catharsis, quinine in three grain doses. Afterwards quinine and iron as a steady tonic, bromide of potassium and sulphate of magnesia as a nerve sedative and laxative. On February 21, I lanced a tumor about the juncture of the coronal and sagittal sutures which discharged blood and pus. Cerate dressing locally, a nutritious diet, iron, quinine and iodide of potassium, were prescribed. The patient rested better, had only light fever and no cough. Soon afterwards I prescribed quinine, iodide of iron, and the compound tincture of cinchona. March 10, I noticed a fistulous opening about the diameter of a small pipe-stem, through the skull, and pus was thrown through the opening, seemingly consonant with each pulsation of the brain. The discharge emitted a very offensive odor. There was also a glandular tumor of the neck, which being incised discharged pus and blood. With absorbent cotton the wound was cleaned. Carbolic acid, as a dressing locally, was prescribed and cod liver oil and iodide of iron, administered. There was considerable depression around the fistulous opening, which was probably about the size of a silver dollar, an unhealthy granulating sore. After a week there was no marked change except that the odor had almost disappeared. I prescribed perchloride of iron, iodide of potassium, phosphate of lime, and cod liver oil. On March 25, I noticed about the juncture of the coronal and temporal sutures another small fistulous opening discharging pus. The opening on the top of the cranium was unchanged, odor less offensive, less discharge, and the appetite improved. The patient is much more lively and active, bowels regular, and the ulcer about the same. I cauterized it with nitrate of silver and continued treatment. April 10, less discharge of pus; ulcer on top of head seems to be healing around the edges; the opening was a little larger; appetite good. April 25, opening on the top of cranium about the same; very little pus discharged; the lower wound much the same. On July 3, I removed with forceps several pieces of bone from the ulcer about the site of the temporal and coronal sutures. The treatment at this time consisted of iodide of iron, cod liver oil, and a little good wine. The patient was now without medicines for about two months. The opening on the top of the cranium then discharged more pus of very offensive odor. The lower wound became larger and I again removed pieces of bone. I have thus given a history of the case with treatment to date and, regarding it as quite interesting, present it for consideration by the Society. My understanding is that he was vaccinated with bovine virus.

Dr. Dean.—Are there any children younger than this one?

Dr. Guibor.—Two or three. One girl vaccinated at the same time had an eruption over her body. The other members of the family did not have any trouble. All the children were in good health when they were vaccinated.

Dr. A. Green.—I consider the case one of septo-pyemia—superficial pyemia. The most effective treatment in addition to the internal would be the topical application of disinfectants; use the bichloride of mercury and a five per cent solution of carbolic acid. I would treat it as a case of septo-pyemia.

Dr. Bremer.—It seems to me that this is one of three things; it is either tertiary syphilis, scrofula, or tuberculosis. These diseases are known to produce such lesions as the one that is here presented. Local tuberculosis of the bone occurs. I don't know whether it has ever been described in bones of the skull, but tuberculosis of the long bones, of the shafts and of the joints is known; but of the flat bones I am not certain whether such cases have been described. Scrofulosis is more a condition than a disease, and whenever there is suppuration in a scrofulous subject, according to the doctrine of the day, it is a bacillary affection; there remains, then, only syphilis. This seems to be a case of syphilis, and I believe that if the inunction treatment—with the gray ointment or oleate of mercury—and iodide of potassium internally were used, it would produce a decided amelioration of the symptoms. Where he got syphilis from, of course, nobody knows; since there are so many ways to acquire it. It is not probable that this is a congenital affection. He may have acquired it by vaccination, or by coming in contact with a syphilitic subject, or syphilitic secretions; such cases are not rare at all; syphilis

has been known to be propagated by school children eating from the same piece of bread.

Dr. A. Green.—Dr. Gregory, if I am not mistaken, pronounced a great truth, when he said, in syphilis there is very little true pus. Am I right Dr. Gregory?

Dr. Gregory.—You are right.

Dr. A. Green.—I indorse that view. If this were a case of syphilis there would be more or less eruption over the body; there would be more glands indurated and involved; there would be more symptoms displaying that disease. When the pus was discharged it smelt badly; this shows that there is a septic influence present, and we know very well that septic organisms will enter into a suppurating wound, and turn into pyemic organisms which will produce pyemia; and then again, there are cases of superficial pyemia, not attended with any abscess of the lungs or other organs. So long as this pyemia remains superficial and does not involve any of the organs the patient may get well.

Dr. Bremer.—I ask the gentleman who presented this case whether there was any fever?

Dr. Guibor.—Not at this time.

Dr. Bremer.—Then it is not a case of septicemia.

Dr. A. Green.—Didn't the patient have fever?

Dr. Guibor.—He had at one time.

Dr. Gregory.—Is there any necrosis?

Dr A. Green.—He has not probed to find out.

Dr. Bremer.—There is destruction of the bone.

Dr. Gregory.—I didn't know but it might be a case of pure caries.

Dr. Bremer.—That must have a cause. Sepsis and pyemia must be excluded from this case. I don't think there is any septo-pyemia; septicemia and pyemia in my opinion are entirely distinct in character, and neither of these diseases had anything to do with this case. It is not one of septicemia, because sepsis is an acute process and runs a rapid course; it is not one of pyemia, because in pyemia the fever is of a decidedly intermittent type. A patient may be comparatively free from fever but it recurs at a certain time, together with a chill. There is nothing in the history of this case that would point that way, but every indication goes to show that it is a case of syphilis. Dr. Green mentioned the fact that the pus smelt badly, and assumes that this is a sign that the case is one of pyemia. I don't believe that there is any one smell in the world that is more offensive than syphilitic ozœna, that condition in which the ethmoid and other bones of the nose are suppurating; and I have very often observed that fetid smell in just such cases of suppuration of the skull bones. The skull bones are a favorite site of syphilitic suppuration and destruction. An allusion was made to the fact that syphilis was not much of a suppurative disease. That is true; syphilitic inflammation tends towards cicatrization, towards the formation of new connective tissue. But occasionally syphilitic neoplasms, particularly those of the bones, break down; and destruction takes the place of the new formation. It may be set down that all syphilitic sores of a tertiary character have a bad odor if they are not thoroughly cleansed, but it is not characteristic of pyemia.

Dr. A. Green.—If the Doctor will read that part of Billroth's work that treats of septicemia and pyemia, cases which are actually due to septic influence, he will find that there is such a thing as septo-pyemia. Again some actually say that those organisms which produce pyemia are entirely different from those which produce septicemia; but again they say and show a great many examples in which under certain influences organisms infect suppurating wounds and are afterwards modified and actually become pyemic in their nature. This boy was vaccinated in 1881, and we know that we can cure syphilitic chancres in a much less time than has been occupied in his treatment. Why don't this wound upon the arm get well; and if it is actually only syphilis, why don't we see more manifestations of it; why are not the shafts of the bones affected? We know very well that even in cases of caries, or of necrosis the bones are reproduced. The doctor says that in syphilitic affections of the nasal bones the discharge is fetid, well that is all right; but I think the fetor comes from a septic influence.

Dr. McPheeters.—This seems to be a case that we must disagnosticate by exclusion, and for one I should exclude syphilis. From its history I should also exclude tuberculosis, and I should most decidedly exclude pyemia and septicemia. The symptoms can all be ascribed to scrofulosis. The race to which this boy belongs is subject to scrofulosis. I am aware that the term scrofula is not a very definite one; there are, however, a great many terms in medicine which are not very definite, yet scrofula from time immemorial has been recognized as a disease.

Dr. Hurt.—From the history as detailed to us, we are justified in calling the case suppurative periostitis with consequent destruc-

tion of bone. The process by which destruction was produced was inflammatory. I do not know whether to associate this trouble with vaccination or not. It reminds me of cases in my practice that caused me to reflect very seriously upon the vaccine virus I had been using. Some four years ago we had a slight epidemic of small-pox and that vaccine virus which seemed most prompt and satisfactory was obtained from the Higgins Farm. That was the experience of other physicians, and it was also selected by the Board of Health for use in the schools and among the poor. Later in the epidemic I vaccinated Two children with a specimen of Higgins farm virus, and the result was almost disastrous. Owing either to its impurity or to a vitiated condition of blood of the children, a very high state of inflammation ensued at the point of insertion with very large sores. The father of the child told me that it didn't get well for three months. I became apprehensive that the demand upon the manufacturer had become so great that he had unintentionally,made a wrong selection of an animal to produce the virus. Neither of the cases had abscess or sores over the body, nor was the periosteum involved, but they had severe fever and excruciating pain. I am inclined to say that this trouble was due to vaccination; but I have no disposition to declare that the children were syphilized.

Dr. Meisenbach.—I ask the gentleman who presented this case whether there was fever at the time he saw this strawberry appearance at the site of vaccination, and whether the arm was swollen?

Dr. Guibor.—The arm was not swollen. I don't remember whether there was any fever at the time or not; there was prior to that time.

Dr. Meisenbach.—At the time pus escaped from the abscess in the top of the head was there fever?

Dr. Guibor.—There was not.

Dr. Meisenbach.—The history leads me to exclude the theory of poisoning by vaccination or following septicemia or pyemia. It is known that vaccinating wounds will become inflamed like other wounds. There are cases in which granulations develop and usually these cases are accompanied with fever. In case of pyemia or septicemia at the time of opening the abscesses on the crown of the head there would necessarily have been fever, and the opening of the abscess would have developed a febrile condition with marked exacerbations morning or evening; all these symptoms were absent. Therefore we can exclude pyemia and septicemia. In regard to syphilis,practitioners must make allowance for many statements that patients make. It is notorious that patients prevaricate in relation to their previous history and that of their ancestry; in the African race, a majority are scrofulous or syphilitic. Dr. Bremer has stated that it is known that syphilitic processes are localized, and especially is this true on the cranium. Some of the gentlemen may recollect the case of a nurse at the City Hospital in 1876 who had a hole in the parietal bone; the bone had necrosed and no other portion of the system was involved. The man was apparently in good general health. He had been under mercurial treatment with iodide of potassium.

Dr. Atwood.—In the consideration of the case I would exclude pyemia, septicemia, and all idea of tertiary syphilis as well as of tuberculosis. Any man who has practiced medicine for years amongst the African population will readily acknowledge that nine-tenths of them are scrofulous. It is well understood that any sore which may be produced upon a scrofulous negro is slow to heal and is characterized by the formation of pus, pursuing just such a course as has marked this boy's arm succeeding vaccination. I don't believe that there was impurity in the vaccine matter, but that owing to a coincidence there were developed phenomena which are characteristic of the vice of system which we term scrofulous. Physicians who have practiced for many years among negroes will remember cases in which abscesses on different parts of the body have occurred with characteristic eruptions; necrosis and scrofulous caries very frequently present themselves as in this case. The marked peculiarity in this instance is the location of the abscess, which in the inflammatory stage extended from contiguity of tissue to the cranial periosteum, resulting in caries or necrosis with exfoliation. Another evidence that scrofulosis is at the bottom of this trouble is the involvement of the cervical glands which is so commonly observed in this diathesis. The treatment was admirable, I don't believe that Dr. Guibor could have done better than to put the boy upon alteratives and tonics, administering such agents as quinine, iodide of iron, and cod liver oil.

Dr. Coles.—I concur heartily with all that has been said by Dr. McPheeters and Dr. Atwood as to the pathology of this case. The treatment adopted by the doctor, at least the use of the iodide, may lead us very safely to exclude syphilis. My experience has been that when you have a case of suspected secondary or tertiary syphilis you can generally

test the presence of a syphilitic taint by the free use of the iodide of potassium in combination with tonics. If you don't have a very decided benefit both locally and generally with this combination, you may be quite certain that the case does not belong to that category. I have been a little surprised to hear gentlemen mention mercury as one of the remedies that would probably benefit this case. Granting that this is syphilitic I don't see what benefit is to be expected from mercury. Under the influence of mercury this patient's condition, already impaired, would be rendered worse. In regard to the influence of vaccination let me say that I have seen the same virus act differently upon different children; the effect of the vaccination is sometimes different in different members of the same family, owing to the state of health they happened to be in. Vaccination has been blamed for many ills that belong to the diathesis of the patient.

Dr. Borck.—I desire to make a suggestion as to the treatment. I would remove the dead bone and use peroxide of hydrogen as a local application, cleansing the wound thoroughly. I have seen such admirable results from its use where there was necrosed bone that I think it should be tried in this case. I would put the boy on bichloride of mercury in small doses. I don't think that we have a better tonic in cases of necrosis.

Dr. Bremer.—If that boy had been treated vigorously with mercury, and in spite of it these destructive processes had gone on, of course, the mercurial treatment would be out of the question; but as this has not been done inunction with the drug should be tried, and in two weeks the question would be settled if it is syphilis or not; it would not hurt the boy. Of course the iodide of potassium, at least 15 or 20 grains three times a day, or 30 grains twice a day, should be given; you cannot expect to have any result from a less quantity.

Dr. Guibor.—I prescribed about 10 grains of iodide of potassium three times a day. The tincture of iron was given in as large doses as the stomach would tolerate. I was well aware that it was necessary to use heroic doses; the patient never took more than 10 or 12 grains of iodide of potassium three times a day. Occasionally he became nauseated and I then reduced the dose. This was kept up ever since I saw the case, with the exception of about two months that he was not under observation.

Dr. A. Green.—Patients who have been vaccinated afterwards become sick and some die, but it is not always the vaccine virus that is at fault. Disease and death may be caused by the unclean lancet, just as any other surgical instrument which is not kept clean may produce mischief. A certain physician told me that he had vaccinated a boy with some virus that he vaccinated other patients with; but he used his finger nails to denude the cuticle, and as he allowed the dirt to accumulate under his nail, he in this way infected the patient.

Dr. Moore.—Apropos to the case presented I have in mind one in the Philadelphia Hospital in which the parietal bone of one side had been destroyed. The patient was an adult negro, and Dr. Gross pronounced the disease syphilitic. Dr. Maury, one of the best syphilographers in the state, declared that it was not syphilis, because the iodide of potassium given in large doses neither stopped the process nor influenced it, and because there was an absence of syphilitic manifestations over any other part of the body. Dr. Levis, Dr. Pancoast and others were divided in opinions. The case was treated upon the idea of Dr .Keyes that the bichloride of mercury is tonic in these conditions. Neither the iodide nor the bichloride of mercury stopped the necrotic process. Dr. Gross finally suggested inunctions with mercurial vapor baths. These favorably influenced the case, but didn't stop the necrotic process. Dr. Maury, upon the ground of scrofulosis, began a full course by inunction, and internally gave cod liver oil and whisky, and when the session closed the patient was in a fair way of recovery. He stuck to his diagnosis that it was scrofulosis and not syphilis, upon the ground that the iodide of potassium didn't stop the process.

Dr. Gregory.—I was unfortunate in not getting here in time to hear the history of the case; I am unfortunate, too, in not having examined it. I saw the boy but a moment, and recognized bone trouble; I have not examined sufficiently to determine whether it is inflammatory or non-inflammatory. I have rarely seen what we call caries in syphilitic patients. Whenever the bones are involved by any disease that destroys their life it is usually a necrotic process. I can not call to mind a single instance in which necrosis of the frontal bone, which was not the result of an injury, was not probably due to syphilis. It has always been a sort of rule, and I have confirmed it by observation, that all diseases of a necrotic character, not the result of injury, involving the front portion of the skull are syphilitic. I have been in the habit of testing doubtful cases of inflammatory disease, chronic in character, where there was a

question of syphilis; and the conclusion arrived at has been decided by the treatment. I always begin with very small doses of the iodide, and increase the dose every few days, say every five days, until I reach the point beyond which tolerance is not possible, or until I reach a point where there is no amendment of the symptoms. There being no amendment, I conclude perhaps it is syphilis,that there is some modifying agency which influences the case. It has always seemed to me that the word scrofula, was very vague and I never think of scrofula without assuming some condition of chronic inflammation. I don't know scrofula unless it is by some local expression in the shape of inflammation. I am in the habit, when called to a case of scrofula, rather to call it chronic inflammation; and I make a distinction mentally and practically between a chronic inflammation and an acute inflammation. It seems to me that there are different qualities of morbid action; that there is not simply a difference in degree, but a difference in action and quality.

I have never been able to draw a distinction between processes which I call scrofula and the other process which is called tuberculosis. They seem to be closely allied. I suppose that this is a case of syphilis, an idea I have from very superficial observation. Its relation to vaccination is something we cannot very well get at. There is a degree of obscurity and difficulty about the case which makes it almost impossible to diagnosticate with certainty. I was very sorry to hear Dr. Coles inveigh against mercurials. I have grown old and gray in the use of them, and if I have ever seen effects that were clear, distinct and unequivocal I have seen them in syphilis by the use of mercurials. I have never seen anything more distinctly advantageous in the use of iodide of potassium than I have from the use of mercurials. I have invariably found that the effects of the iodide of potassium were not nearly so permanent as when that agency was reinforced by a mercurial. As to mercurials being depressing agents, I have never brought myself to believe that. Unless they are given in sufficiently large doses to subtract from the body, I am disposed to believe that mercury is a tonic; and when I learned a few years ago that the red corpuscles were increased by small doses of mercury I felt that I had an explanation for the tonic influences which I have so often observed following the use of this mineral. I have had people come to me who seemed upon the ragged edge; pallid, emaciated and debilitated to the very last seemingly possible degree; and I have found that their trouble was syphilitic; perhaps it was a trouble with the bowels, or it was a trouble with the glands, perhaps an ulcer of the bowels, and I have given these people mercurials. I have astonished myself not less than my patients at the influence of this agents.

I have often heard that mercurials were antagonistic to the plasticity of the blood, but I have never been able to believe it. I know that people get strong from the use of mercurials; I am as certain of it as I am of the use of quinine; and that mercurials are as specific in their relation to syphilis, as is the iodide of potassium. So impressed am I with this fact that I wouldn't hesitate to use it on myself were I subject to syphilis. In regard to this pulsation, I didn't examine the patient, but I suppose it is a perforation such as I have frequently seen. We often see granulation tissue pulsating through its own blood-vessels, but I suppose that this is the pulsation of the brain. In regard to caries, we know that caries is limited largely to what we call the spongy portions of bone; and of course it occurs about the joints. Although my observation has relatively been a limited one, I have rarely seen syphilis involve the joints. Caries without necrosis is rarely ever observed in syphilis; on the other hand, syphilis involves the hard bones and the shafts of bones, while caries select, the spongy texture of bones. Necrosis, where it depends upon constitutional causes,usually select the shafts or denser portions of bone.

BOOK REVIEWS.

BEGINNINGS WITH THE MICROSCOPE. By Walter P. Manton, M. D. Illustrated. Published cy Lee & Shepherd, of Boston. C. T. Dillingham, of New York.

This is a neat little book of 73 pages and contains as much useful matter, including the latest devices, as it is possible to put into the given space. For any one beginning with the microscope who has not a teacher at hand, or even if they have we do not think they can find a more convenient little companion.

A MANUAL OF DISEASES OF THROAT AND NOSE, including the Pharynx, Larynx, Trachea, Œsophagus, Nose and Naso-Pharynx. By Morell Mackenzie, M. D., Lond. Vol. II. Published by Wm. Wood & Co., New York.

This is the August number of Wood's Library of Standard Medical Authors, and the name of Mackenzie is so well known that the book needs

no introduction. The author says that it is now nearly twelve years since the work was begun and that almost every page has been written and re-written many times. It discusses the gullett, the nose, and diseases of the naso-pharynx, and an appendix of special formulæ closes the volume.

The author has traveled somewhat in America and ventures to give an opinion relative to the frequent catarrhs so common in America. He considers it due to the large amount of dust so prevalent in states which he visited. The reviewer is sceptical enough however to venture the question as to whether catarrh is after all so much more prevalent in America than in Europe. Some light may be possibly thrown on the subject by supposing that the Americans are more sensitive to the condition than the Europeans. Judging for example from the amount of dentistry done in America it might be supposed that the teeth of Americans were more prone to decay than those of Europeans, inasmuch as in all probability the dentistry of America exceeds relatively that of Europe a good deal more than a hundred per cent. and yet we would venture that the normal condition of the teeth of Americans would compare well with those of Europeans.

In speaking of the prognosis of "Dry Catarrh" p. 233, the author says: "The stench diminishes in intensity as age advances and at about fifty generally ceases altogether." Such is not our experience; two of the worst cases we ever saw, were in patients more than sixty years of age:

Those who have at their command the instruction of this volume will not fail for lack of information to do justice to their patients.

THE NATIONAL DISPENSATORY, containing the Natural History, Chemistry, Pharmacy; Action and Uses of Medicines. By Alfred Stillé, M. D., LL. D., and John M. Maisch, Phar. D. Third Edition thoroughly revised with numerous additions, with three hundred and eleven illustrations. Published by Henry C. Lea's Son & Co., Philadelphia, and on sale by Jansen, McClurg & Co., Chicago.

This eminently useful book has already made its record and the authors have spared no pains to bring it up to date. The very first article gives very complete information relative to jequirity. In the next edition they will no doubt correct the statement that it owes its virtues to the bacilli developed in the infusion. Even on the question of cocaine, it gives us more information than any other one source, apart from special monographs. When seeking information on drugs we get more satisfaction from this source than any other.

DISEASE IN CHILDREN. By Eustace Smith, M. D. Published by Wm. Wood & Co., New York. Chicago: W. T. Keener.

This is certainly the most complete treatise on disease in children with which we are acquainted and the publishers have spared no pains in presenting it to the profession in a very acceptable dress, both with reference to the paper and print. After the introductory chapter. in which the author discusses certain topics which belong especially to childhood, he takes up seriatim: The Acute Infectious Diseases; General Diseases not Infectious; the Diathetic Diseases; Diseases of the Ductless Glands and Blood; Diseases of the Nervous System; Diseases of the Organs of Respiration; Diseases of the Heart; Diseases of the Mouth and Throat; Diseases of the Digestive Organs; Diseases of the Liver; Diseases of the Genito-Urinary Organs; Diseases of the Skin.

We have taken special pleasure in reading over Chapter III, on Infantile Syphilis, and cannot speak of it in too high terms relative to conciseness, completeness and style.

LECTURES ON THE PRINCIPLES AND PRACTICE OF MEDICINE. Delivered in Chicago Medical College, Medical Department of the Northwestern University. By Nathan Smith Davis, A. M., M. D., LL. D. Published by Jansen, McClurg & Co. Chicago, 1884.

The above work constitutes in general the observations and deductions of a half century of active work in a wide field of active practice. We do not think the general theoretical observations, which, however. do not extend beyond the fifty-second page, the best possible; without going into the question extensively we may mention that the division of the "composition of the body" into "fluids and solids" is not a division which we should consider advisable. In the consideration of the general and local diseases there is exhibited an amount of zeal and generalized observation and reading which cannot fail to entertain the true student of the practical part of medicine.

We are glad to see that the metric system of weights and measures has been adopted throughout, and that the apothecaries' weight takes the second place rather than the first. We are specially pleased to note that the real spirit of the decimal system has been observed in preference to making the corresponding apothecaries' weights tally with it exactly. Many will hail the work as a memorial of a zealous, persistent, hard worker in the laborious field of medicine, and such will unquestionably profit from the terse clinical histories and symptoms therein depicted.

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TO OUR SUBSCRIBERS.

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THE THERAPEUTIC VALUE OF PEROXIDE OF HYDROGEN.—P. Bert and Regnard report on the uses of peroxide of hydrogen in the Compt. rend. hebd. de la soc. de Biologie. It proved very effective in the treatment of wounds, as an application to atonic ulcers, gangrenous sores and syphilitic ulcers, blennorrhagic conjunctivitis, chronic cystitis, gonorrhea, etc.

The results in diphtheria were encouraging. Herpes circinatus, pityriasis versicolor and chloasma were cured by it; no success followed its use in favus however. It is recommended for injection into echinococcus-cysts, to kill the parasites. In gastric and enteric and dysenteric trouble, due to micro-organisms, it can be exhibited in capsules or used in enemata. The remedy is odorless, and its use causes no distress and is attended by no dangers. The only precaution necessary is to obtain it well neutralized; it must contain no sulphuric acid nor baryta.

TUBERCULAR MENINGITIS SUPERVENING AFTER OPERATIONS ON TUBERCULOUS SUBJECTS.—Verneuil declares in the Gaz. Med. de Paris, 1884, No. 27, that the study of the subject for many years leads him to believe that operation of tubercular arthritic trouble is often rapidly followed by general tuberculosis and death ensues generally from tubercular meningitis. He has noticed such sequels in so many instances that he insists on a causal connection between the two circumstances. The simpler operations, such as partial resections or curetting seem invariably to be followed by disastrous results of the nature cited. Verneuil quotes the similar experiences of Koenig, and therefore cautions against active interference in tubercular arthritis and ostitis.

THE TREATMENT OF CHOLERA ASIATICA BY WARM ENEMATA OF TANNIC ACID.—In the Centralblatt für d. Med. Wissenchaften, November 1, 1884. Prof. Arnaldo Cantani of Naples makes a preliminary report on his method of treatment of Cholera Asiatica. He started out with a view to changing the alkaline reaction of the intestinal contents to an acid reaction, knowing that acidity is inimical, if not to the existence, yet to the proliferation of the comma-bacilli. He experimented both with muriatic acid and tannic acid. He had had gratifying experiences and successes with tannin in acute and chronic intestinal catarrh, in ulcerative processes, and infective dysentery. He therefore used the agent in premonitory and also in already characterized cholera diarrhea and

reports successes in hundreds of trials in the present epidemic at Naples. He claims positively that the general practice of his method at the beginning of cholera diarrhea in times of epidemic would cut off the development of the grave attack in a large majority of cases. His formula is as follows: Aq. (ebull.) calidæ, 2000 g; acid. tannic, 5-6-10 g; gummi Arabic, 50 g; laudan., gtt. 30-50. This enema is best given by an irrigator or fountain syringe suspended at a height of 3—4 meters. In place of the simple boiled water an infusion of chamomile flowers may be employed. One single enema, at a temperature of 38° C., checks premonitory diarrhœa; if characteristic discharges already exist one application usually causes a cessation of diarrhœa for 8—12 hours. Then after each discharge the enema should be again given. Four or five such clysmata are followed by most favorable symptoms. The secretion of urine goes on, the inspissation of the blood ceases, and the reactive fever-stage ensues without serious typhoid symptoms, and thus the algid stage does not at all develop.

In discussing the mode of action of the tannic acid, Prof. Cantani says that the astringent quality may be beneficial in obviating the vaso-motor paralysis of the intestinal circulation, that is assumed by many.

The discharges are of an acid reaction after the clysmata, and this appears of great significance. And it is in the direct influence on the bacilli that the chief virtue must be sought. To demonstrate this, pure cultivavations of the bacilli were treated with the tannin. The result was most striking. The organisms were not killed, but their propagation in the medium was checked and even their motility suspended for 24–36 hours. This sterilizing influence therefore explains the good influence of the enema.

Further researches may lead to the discovery of other agents that can be forced in solution into the intestinal tract, and will check the choleraic process. At any rate according to Cantani, the tannin treatment may possibly be the abortive one in cholera.

Salicylate of Bismuth in Typhoid Fever.—Vulpian recommends the above named salicylate on account of its slower solubility; thus in the intestinal tract a more continuous and gradual action takes place.

Desplats gave the drug in wafers and in slimy vehicles in doses of 1–2 g. four or five times a day. In most cases the temperature was reduced by several degrees.

It appears that there is an acid and a basic salt. The action of the drug is due to the gradual elimination of salicylic acid and to the protective coating influence of the Bismuth-oxide upon the catarrhal or ulcerated mucous surfaces. The basic salt is to be preferred.

Questions Relative to Emmet's Operation.—Journalism cannot, with profit to the subscribers, be conducted on the principle of a Mutual Admiration Society. We are in receipt of some questions, which we publish below, from a representative of the Indiana State Medical Society, on the subject of Emmet's operation. We fear the doctor will not collect information of any great value if it is circumscribed by the questions formulated. He says: "To collect further reliable material is my object in sending out this circular. Will you kindly send me information upon the following points:

1. The number of cases under your care subsequent to the performance of Emmet's operation.

2. The length of time each case was under observation.

3. Was the patient temporarily or permanently benefitted?

4. Did the signs and symptoms for the relief of which the operation was done disappear? If so, did they recur in any cases? In how many?

5. How many cases under your observation became pregnant after the operation?

6. What was the termination of the pregnancy?"

We do not wish to be hypercritical, but the third and fourth questions here are practically the same. As to the fifth we would

say that women become pregnant, but not cases. As to the sixth it is possible to divine what information is sought but only by inference. The termination of a pregnancy is usually delivery, but if the doctor wishes to know whether any laceration occurred as a result of delivery why does he not ask that question?

PERSONAL OBSERVATION.—It is not only the student who requires to be a admonished to close observation. All other things being equal the most successful "doctor" will be the one who observes the closest and generalizes his observations. This subject is neatly discussed relative to its scientific aspect by a writer in the London Med. Times, in the form of a letter to a young man on his adoption of the sphere of Medicine as a career:

"MY DEAR BOY:—I am rejoiced to hear of your decision, and you may count on my doing everything in my power to help you, both now and hereafter. I make this promise with a light heart, for I am sure that a brilliant and clever fellow like you will turn out a credit to every one who has had anything to do with him. You must not forget, however, that genius has its special dangers and defects as well as its special facilities and advantages. And the study of medicine is a field in which the former are often more prominent than the latter. Name and fortune are not to be made with us by a *coup*, as they may be in literature or commerce. I never remember to have heard of any one in our profession awaking to find himself famous, and if you have ever dreamed of such fortune pray dismiss it from your mind at once. Imagination and invention such as yours may have their full play in medicine —nowhere more so. Most of our great discoveries—Hunter's of tying arteries for aneurism, for instance—have been, so to speak, strokes of genius, but with us such strokes only come to those who have spent long years in observation and thought. They are like the blooming of the aloe. So my advice to you and to every other student of medicine is, "Observe, observe." Do not let yourself be discouraged by the idea that everything that is worth observing has been observed already. A fresh mind coming to a problem may see things that every one before has missed. I have the less hesitation in impressing this advice upon you, because I know you to be, possibly by original constitution, and certainly by your education, more inclined to introspection—which, if it is observation at all, is certainly of the most fruitless kind—than to the observation of external phenomena. Let me ask you, did they ever teach you at school or at college to observe a single thing but the meaning of a Greek particle or the value of a cosine. Your life has hitherto been spent among books, the study of which you have been taught to look upon as your end and aim. Henceforth you will have to regard books not as an end, but as a means, and often a very inefficient means, toward the study of facts. What you read in them you will in nine cases out of ten be able, sooner or later, to observe and verify for yourself; and let me tell you that a fact personally observed is worth a hundred observed only vicariously. Do you remember our walk along the North Devon coast last summer? Possibly you forget, though, how I pointed out to you a hundred little sights and sounds of nature, while you were dreaming how to crystallize into a sonnet the vague impressions on you of the many-sounding sea. My boy, vague impressions and the conjury of sonnets and triplets have no place in medicine, and if you do not throw them aside or grow out of them no success will come to you in your chosen path. The truest success in medcine, the admiration of your contemporaries and of posterity, can only be gained by faithful observation of nature, and. if you desire those things, that is the faculty which you must cultivate and employ. I have spoken plainly, because with your splendid abilities you will be expected to do great things with us; but if you trust only to genius, and not to hard and energetic labor, you will find yourself at forty in a Bloomsbury garret, instead of in those Elysium fields of the doctors—Brook Street and Cavendish Square."

American Priority in the Discovery of Cocaine (Erythroxyline).—The Medical Record writes:—We are glad to give prominence to the following letter from Dr. Samuel R. Percy, of this city, in which he puts in a claim, apparently a just one, of priority in the discovery of cocaine, or as he called it, "erythroxyline." He writes: "On November 4, 1857, I read before the New York Academy of Medicine an exhaustive paper upon the leaf of the plant erythroxylon coca and stated that I was busy in its chemical investigation. On December 2, 1857, I exhibited to the Academy of Medicine one scruple of the alkaloid of the leaves, to which I gave the name erythroxyline. At the same time I left with the librarian of the Academy this scruple of erythroxyline, a quantity of fluid extract and some solid extract, and also a fine sample of the leaves. I read before the Academy the method of preparing the alkaloid and a number of physiological experiments upon dogs. I then stated that the hydrochlorate of erythroxyline had a peculiar but not unpleasant benumbing and paralyzing effect upon the tongue, unlike that produced by aconitia and not so persistent. The libraian of the Academy has been unable to find tbe paper or the alkaloid, but the fact of such a paper having been read, and such an exhibit having been shown, is recorded on the books of the Acdemy. I still hope to find the paper. Some three years after this, Niemann, in Germany, discovered the same alkaloid, and in his announcement called it "cocaine." Immediately upon this announcement I reiterated the priority of the discovery in Dr. Stephen Smith's Medical Times. I also personally saw Mr. George Wood, of Philadelphia, and he promised that in the next edition of the United States Dispensatory the subject should be fairly stated. He forgot it. The name cocaine is not a correct one, it is almost universally called cocaine, leading one to suppose that it is a product from the cocoa berry. With its correct name, erythroxyline, it cannot be mistaken. As an American, I claim the name given to it in America, and hope that every American surgeon will do the same."

New Symptoms of Meningeal Inflammation.—Kernig reports, (Centralbl. f. Klin. Med.), that in examining fifteen cases of inflammation of the pia mater, of which thirteen were cases of epidemic cerebro-spinal meningitis, one of tuberculous meningitis, and one of purulent meningitis, he found, that, if the patient was placed in a sitting posture a contraction of the flexor tendons of the knee-joint was observed; in the severe cases it was so pronounced that the contraction could only be overcome by considerable force. For the occurrence of this contraction it seems to be necessary that the thigh should be flexed to a a right angle, as the symptom is not observable in the upright position. This phenomenon is present at the beginning of the disease and persists during its entire period; in convalescents it lasts for some time after they get out.

And on a similar subject the Columbus Medical Journal writes: "Dr. Lambert Ott has recently signalized, as a symptom of tubercular meningitis, the extreme sensibility complained of by the patient when pressure is made over the surface of the femur; a fact which, although accidentally discovered in examining a case, he has been able to verify in a second case where pressure over other parts of the body excited no pain whatever.

The mention of this clinical sign, which the Paris Medical extracts from the Phila. Med. Times brings to our recollection, a clinical lecture of Mons. Lasegue, in which the Professor insisted upon its diagnostic value and cited three cases, remarkably confirmatory of his conclusion. In a first case, called to see a young girl presenting symptoms of meningitis—which, moreover, was confirmed later—Mons. Lasegue discovered, while exploring the cutaneous surface, an extreme sensibility over the region of the thigh. At the moment he used even a moderate degree of pressure, the patient uttered a cry of pain, while no hyperesthesia was present in any other region of the body.

In another patient the pain was not so severe, still it was present in no inconsiderable degree. Finally, in a female twenty years of

age, attacked with fever, violent headache and delirium, this sign was quite pronounced, as the patient was aroused from a semi-comatose condition and became conscious of severe suffering as soon as pressure was made on the thighs.

Mons. Lasegue was forcibly reminded of these several cases occurring in his practice apropos to the condition of a young girl, who entered his service suffering from deafness, prostration, and stupor, without any intestinal or thoracic difficulty, and who presented this phenomenon in a marked degree. At the moment this explanation was made the patient gave evidence of suffering very different from that experienced in muscular rheumatism.

In view of these facts M. Lasegue concludes that this symptom, conjoined with others, is a valuable aid in confirming a diagnosis of cerebral or meningeal troubles.

In support of this view, we may mention that Dr. Fournier cites a case of a young man, suffering from cerebro-meningitis which was rapidly fatal—in which this pain excited by pressure over the thigh was present in a high degree of intensity. In this patient, treated by MM. Fournier, Charcot, and Edward Labbe, the pain was so severe that these gentlemen at several different times made a careful search to ascertain whether there was not present some local trouble in the form of periostitis, ostitis, or abscess independent of the cerebral affection.

A careful examination failed to give an explanation or clue to local difficulty.

With a view of calling attention to the apparent connection between the meningeal trouble and the pains referred to, M.Fournier proposed to designate them as "cerebral pain of the extremities" until a more satisfactory idea can be formed of the real pathogeny."

Correction on the Ruling of the Court.—We lately stated that the Circuit Court had ruled that a physician was under no obligation when acting as a witness to give an opinion as an expert. The Medico-Legal counsellor for the defense, Dr. M. D. Ewell, in the case in question has since informed us that the question proposed by the plaintiff's counsel was not properly penned to raise the question, and hence the question was not allowed. Dr. Ewell gives it as his opinion that had the question been properly put, it must have been answered, stating at the same time, that the judge, who tried the case, subsequently expressed himself to that effect.

Personal Sacrifice.—Dr. Cory some two or three years ago infected himself with syphilis from the lymph of a vaccine-vesicle from the arm of a syphilitic child in order to settle the question as to whether such a devel opment was possible or not. Klein has shown his conviction of the innocence of the comma-bacillus by swallowing a number, and now Professor Pettenkofer thus expresses himself, according to a correspondent in the Bost. Med. and Surg. Jour.:

"I think that we all have ample cause for renouncing the 'contagionist' theory in relation to the spread of cholera. We have been led to squander millions of money without apparent benefit by following these delusive theories. (Italy already regrets her sanitary regulations, etc.). I openly announce that I am forced to sustain and defend my former opinions in regard to the 'localization' of this disease, and I do this with the more confidence and the greater positiveness from the fact that the investigations of Koch have not succeeded in establishing any evidence against their correctness.

"The time is now fully come when the experiment should be made to determine whether the comma-baccillus of Koch is capable of producing true cholera. The attempts which have been made upon animals have not been successful. I freely offer myself for this purpose, and am ready to swallow bacilli which have been cultivated by Koch himself, provided that no local or temporary conditions exist at the time of the experiment, such as the presence of cholera in the city, etc., by which the results of the trial might be rendered valueless. War has been waged and human lives sacrificed for

a less worthy cause than this. Here the noble object to be attained is so evident that the life of one individual appears of little importance. My example, which, as I repeat, I freely and willingly make, will find followers. It will not be difficult to find twenty physicians who will offer themselves to confirm my view. Hundreds will follow these, until from the mass of accumulated evidence a correct judgment may be reached. (Professor Pettenkofer also declared his willingness to prepare for the experiment by first inducing a gastric and intestinal catarrh before introducing the bacilli.) I estimate Koch very high as a bacteriologue, and fully recognize his ability in the highest degree, but I must combat the conclusions at which he has arrived."

A Valuable Work on Obstetrics.—We are in receipt of the seventh American edition of Cazeaux and Tarnier's work on Obstetrics, being based in part upon the eighth French and a recent Italian edition. The work is a magnificent volume published by P. Blakiston, Son & Co., and for sale by the publishers of the Review, Messrs. J. H. Chambers & Co. The volume is one of about 1100 pages, and contains twelve full page plates, five being colored, and one hundred and sixty-five wood engravings.

The names of P. Cazeaux, now deceased, who was a member of the Imperial Academy of Medicine, and of S. Tarnier, who is Professor of Obstetrics and Diseases of Women and Children in the Faculty of Medicine of Paris, are guarantees of the classical nature of the book. Its editions were large and followed in rapid succession and the fact that foreign editions, and notably the American, kept pace with theFrench remodelings demonstrates the worth of the work.

The principles of practice as taught by Cazeaux and Tarnier have been preserved,and the latest contributions of the present time in each department of the science have been carefully and freely introduced. From the recent Italian edition notes of Chiari, Morisana and Tibone are added.

Undoubtedly it is the most complete work on the obstetrical art extant and the concise, clear and brilliant style recommends its perusal and study. It is a treatise of rarest merit and value.

The parts on the Pathology of Pregnancy and on Dystocia are exhaustive; in the chapter on Therapeutics is found a treatise on Puerperal Insanity; in the chapter on Obstetrical Operations Laceration of the Perineum is carefully considered.

TRANSLATION.

COCAINE AND ITS SALTS.

BY E. MERCK OF DARMSTADT.

(Klin. Monatsblatt F. Augenheilkunde.)

Translated for the Review by A. Alt, M. D.

The formula of cocaine, an alkaloid of the leaves of erythroxylon coca, (Lamarck), which was isolated in 1860 by Niemann is C_{17} H_{24} NO_4. In 1862 Lossen found a second basis in the coca leaves which has no characteristic action, called hygrine; the leaves further contain ecgonine, tannic acid and a peculiar wax. The crystals of cocaine are monoclinic; they melt at 98° C.; are easily dissolved in alcohol, easier still in ether, but only in 704 parts of water at 12° C. The cocaine salts, however, are easily dissolved in water.

The first news of the action of the coca leaves dates as far back as the sixteenth century (Dr. Monardes, Sevilla, 1569); in 1749 the plant was brought to Europe, described by Jussieu, and called erythroxylon coca by Lamarck.

Investigators, for instance Tschudi, Markham, Poppig and others, while travelling in South America, observed that the natives chewed the coca leaves, when desirous to counteract the depression of especially fatiguing work. The Indians chewed the leaves together with the ashes of chenopodium quinoa, thus eliminating the tannic acid by the alkali and setting free the alkaloid.

Since cocaine has been successfully prepared, it has been thought to be the active principle of the coca leaves.

Cocaine, in small doses, acts upon the nerve centres and upon other nerve regions mostly as a stimulant; in large doses it paralyzes. It

kills the warm-blooded animals, which are less affected by it than the cold-blooded ones, by paralysis of respiration. Although there can be no doubt, therefore, that cocaine is a poison, its toxic effect is but small and its action not cumulative.

According to Fronmueller, who studied the narcotic properties of cocaine in 1863, doses from ½ to 5 grains given internally had no marked effect. In some cases they produced sleep. Pulse and respiration, first accelerated, became later on subnormal. In an individual, who tried to commit suicide, a dose of 25 grains of cocaine caused no disagreeable result. The dose by which death can be produced must lie, therefore, very high; at least if the preparation used was pure cocaine.

The effective dose of my soluble muriate of cocaine appears to be in man about one grain (0.05 gramme).

After hypodermic injections of a diluted cocaine solution a feeling of heat appears at first, then the site of the injection becomes insensible and red, and after about thirty minutes everything has disappeared. When placed on the tongue cocaine paralyzes the nerve-action.

Recently Dr. Th. Aschenbrandt recommended cocaine highly, especially in cases in which the body is weakened by diarrhœa. Within a few months past Dr. E. V. Fleischl and Dr. S. Freud in Vienna experimented with cocaine. The former states expressly that cocaine in hypodermic injections is of enormous value in morphine habit. This fact alone is likely to secure for this remedy a lasting place in the pharmacopoeia.

The muriate of cocaine has been used by these investigators in an aqueous solution in doses of from one to two and a half grains and as high as seven and a half grains pro die.

Cocaine is a stimulant which increases the active properties of the body for some time, without being dangerous. Its effect is more invigorating than that of alcohol. Its usefulness in long marches, ascension of mountains etc., is evident. Whether it will have the same invigorating influence on mental work, is an open question, as, also, whether the alienists will be able to make continued use of it, in order to stimulate the action of the nerve-centres. It has been used hypodermically for months in melancholic individuals in doses varying from grain ¼ to grains 2, and with some success.

Cocaine is a stomachicum; after debauches in eating and drinking it causes rapid restoration and normal appetite. (Dose grain ¼ to grain ½). In atonic weakness of the digestion and nervous disorders of the stomach a lasting restoration may gradually be reached by cocaine. It is of great value in cachexia, in phthisis, grave anemia and consuming fevers. It is further stated, that in continued use of mercurials, cocaine prevents mercurial cachexia.

The greatest future for cocaine lies undoubtedly in its usefulness in the treatment of morphine habit and alcoholism. As the morphine is gradually withdrawn, the doses of cocaine are increased; when morphine is withdrawn at once about grains 2 (0,1 gramme) are injected as soon as the craving for morphine shows itself. Keeping such patients in special homes is, therefore, unnecessary. Dr. Freud, who saw one such case get well after a ten day treatment with cocaine (grains 2 subcutaneously three times a day), thinks that there exists a direct antagonism between morphia and cocaine.

Cocaine has also been recommended as an aphrodisiacum and Dr. Freud has experienced a marked sexual irritation after the use of cocaine.

I desire to say that all the statements made refer to my preparation, cocainum muriaticum solub. Merck. I have no doubt that the other cocaine salts will be found to be of equal efficiency.

Ecgonine is being tried with regard to its physiological action, and I shall report on it later on.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

REPORTED FOR THE REVIEW.

Stated Meeting, Nov. 22, 1884.

The Secretary read a letter from Dr. J. T. Clegg.

Dr. Atwood moved the reception of the same, which was carried.

Dr. Pollak read a paper supplemental to the one read two weeks ago on hydrochlorate of cocaine.

Dr. Williams.—I would like to ask the doctor if he operated in the cataract cases by extraction?

Dr. Pollak.—Oh, no; by discision in both cases.

Dr. Bremer.—I will make a few remarks with reference to the use of cocaine. I have tried it in two cases of neuralgia. One was a case of malarial neuralgia of the supra-orbitalis, but at the same time the infra-orbit-

alis was affected without any inflammation of the conjunctiva. I applied cocaine to the cornea and it acted like a charm; in 15 minutes the symptoms were relieved, but the pain returned in about 12 hours. The patient came back to me and I made use of one more application. Since then, in conjunction, of course, with anitperiodics, the trouble has disappeared. The other is a case much graver; it is that of a gentleman who is under my treatment for multiple or disseminated sclerosis of the spine and brain, and who, in addition to that, is afflicted with a very severe trigeminal neuralgia which comes on at irregular periods. He has been treated off and on by physicians now for the last six or seven years. He has attacks lasting three, four, and sometimes five weeks, suffering excruciating pain. When he first came to me he couldn't speak on account of this pain; the slightest movement of his lips or his cheeks would bring on an attack; this was about three months ago. That attack was broken by the extraction of the last tooth he had in the upper jaw; that put an end to his trouble for the time being, although the tooth was not decayed in the least. I suppose the tooth acted as a foreign body and a constant source of irritation to the mucous membrane of the mouth from whence the greater pain as a rule would start. I gave this gentlemen iodide of potassium in conjunction with arsenic and he became almost entirely free from this trouble. Then he took it into his head to have a new set of teeth fixed for himself. As soon as this was done the same trouble commenced again. Yesterday I applied for the first time the muriate of cocaine to the mucous membrane of the mouth of the whole of the left side, and in about five or six minutes the pain was entirely gone. He remained free from it for about twelve hours, when it made its return, and I applied it again with the same happy results. It seems that the effect will last for about twelve hours. The case referred to is, of course, of central origin. The painful sensation seated centrally is reflected to the mucous membrane of the mouth by the law of excentric perception. Still, there is this wonderful effect on the peripheral sensory nerves. A four per cent. solution was used by me. I painted the whole inside of the cheek and applied it to the gums; to all those parts from which these attacks would take their origin whenever they were touched in the least. I only applied one drop with a brush. I never used it hypodermically.

Mr. Meisenbach.—I saw a statement today by a New York physician that he removed an epithelial growth from the face after injecting into the substance of the growth a four per cent solution. He cut out about three-quarters of an inch of substance without any pain, and it seems to me that extraction should be made with this remedy, using it hypodermically, especially in these cases of supra-orbital neuralgia.

Dr. Williams.—I wish to refer to the case of neuralgia mentioned by Dr. Bremer as I had a similar case some years ago. A lady who lives at Topeka, Kansas, had general facial neuralgia, involving all of the facial nerves. This neuralgic pain was so intense that she could not sleep; she could not eat; she could not remain still, and this condition of things lasted for several weeks. Various remedies were tried with practically no effect. Her physician decided to pull one of her back teeth; she consented at once and he pulled one of the rear molars, perhaps an upper one. I do not remember now, and that gave her immediate relief, and the effect lasted for some considerable time, some days at any rate. The molar tooth which was removed was perfectly sound, and yet the pulling of it relieved the intense suffering from this facial neuralgia. The explanation of this fact, in my judgment, is due to the shock of the nervous system by this violent tearing operation, simply shock. The nerves were by this operation rendered less sensitive.

Dr. Bremer read a paper on Cholera.

Dr. Atwood.—Sanitation exercises but little control over cholera; it will spend its force where people are most cleanly and where hygienic laws are best observed. As evidence of this we have the statement of Dr. See of Paris in the "Matin" interviews: A man coming from Amiens, where there was cholera, in 1865, visited his daughter, at service in the Boulevard Malasherbes, Paris, and died of the disease, which then spread over that part of the city where the most favorable sanitary conditions existed; the outlying filthy districts almost entirely escaped. In 1852 I crossed the western plains and treated numerous cases of cholera; there were hundreds of deaths. The trail was from east to west, and the breezes at that season of the year being mainly from the south swept it at right angles. The water supply was from the Platte River, an immense stream, and this water coming from the Rocky Mountains was free from impurities. Trains select new camping grounds in order to obtain supplies of grass for their animals; yet the cholera kept pace with the emigration. Here we have a people, cleanly and

well dressed, eating good and healthy food to the exclusion of such articles of diet, as Dr. Bremer says should be discarded; using water not from stagnant pools, but from pure running streams, breathing a healthy atmosphere in an admirable country occupied only by savages and wild animals, where the breezes swept away all impurities,and yet the cholera raged, till high in the Rocky Mountains it suddenly disappeared. Here was compliance with every prescribed requirement for the prevention of cholera—yet it raged as an epidemic. "The wind bloweth whither it listeth and ye hear the sound thereof, but you cannot tell whence it cometh nor whither it goeth." So it is with cholera. We know nothing of its cause nor anything of its scientific treatment.

Dr. Dean.—It was good Bible doctrine at the time that part of the Bible was written that they did not know where the wind came from or where it went, but it is not so good doctrine now. We are acquiring knowledge that enables us to tell pretty well where the wind comes from and where it goes. And so there was a time in the beginning of all knowledge, when no one knew where anything came from or would go; and even now as regards the origin we do not know whether it was first the acorn and then the oak, or first the oak and then the acorn; but they are here now, and oaks are producing the acorns and acorns the oaks, and the oak has not lived the life of its species until it has lived through its phases of acorn and bearing tree. So it is now with regard to micro-organisms and diseases they spread; we do not know that there was anyfirst,but certainly we do know that these micro-organisms have their existence and that they run a circle and we can get into that circle and follow it around and sometimes break it up. I am not prepared to say for one that I positively believe or know that the comma-bacillus is the cause of cholera, but I do believe cholera is produced by micro-organisms, and that they will be found, if they are not the comma-bacilli, though I think the evidence is strong that they are. Were it not for micro-organisms no higher life would be possible on the earth. They, and not oxygen, disintegrate and decompose animal and vegetable matters, and are thus prepared to help support life; so in these minor organisms as in the larger we find life parasitic on life. There were several points of interest in Dr. Bremer's paper, as for instance the question of the necessity of the cholera germ, whatever it may be, going into the earth or water or some other intermediate body before entering the person, who is attacked with the disease, the second person, so to speak. It is true a very large number of parasites require such an intermediate object upon which to remain and mature; they require at least two hosts and frequently an intermediate stage. You can take the common tape-worm and it will multiply faster if the links should be allowed to be outside the animal body a given length of time and finally ingested again into another one; or, if they are dried and powdered and the ova are blown about by the wind and attached to substances and food and drink, one can see that the chances are greater for the infection of numerous animals or many men, than when they do not undergo this process. The fact that cholera will exist when, the thermometer is low is, as was stated by the gentleman, no proof that soil or water, or filth is not a favorable nidus for the intermediate stage any more than it is in the case of small-pox. Small pox spreads in winter more readily than in summer, not because cold is more favorable to the small-pox germs, but because the people are huddled together in warm rooms; because the conditions which are favorable to the existence of this poison indoors are better than they are in the summer, when the doors are thrown open and the poison is diluted by the air. As regards cholera being contagious, I don't suppose any one now advocates that, in the sense that mere contact of the body will produce cholera. We know that physicians do with comparative impunity come in contact with cholera patients; but who of us do not know that where the clothing used by cholera patients is not destroyed, and where the stools are not properly disposed of, and disinfectants used, the disease spreads; and that they who wash the clothing are more liable to infection than are the physicians. Cholera goes with commerce and on all lines of travel, and spreads wherever it finds the population and favorable means of dissemination. It is,as I believe the Doctor stated, little doubted now that the bacillus of tuberculosis when injected into a proper subject will produce tuberculosis; and I believe that when the proper germs of cholera are ingested by the proper subject he is as liable to have cholera. I speak of Asiatic cholera, not Cholera nostras—our cholera. The stories in reference to fish dying in the streams, and dogs and other animals dying of cholera during epidemics of cholera are not properly substantiated; we don't hear of them now, or we hear of them only as stories coming down to us from other times, from the laity. I think, as has been stated by the Doctor in

his paper, that where the cholera dejections have been administered to animals and there has been a disastrous effect the animals have died of poison and not of cholera. And the fact that Koch could not produce cholera in animals with pure cultures of the comma-bacilli does not disprove the specificity of these bacilli, as the lower animals are not subject to cholera. There are many points in the paper that I intended to express myself upon when I arose and that I would like to discuss, but there are others to speak. I think we should be careful about reasoning from isolated cases that have not been followed and analyzed down to their minutiæ.

Dr. Atwood—There is no evidence that the cause of cholera is Koch's comma-baccillus. It has not been proven that the observance of sanitary laws, the utmost personal cleanliness, and the use of running water will prevent the disease.

Dr. Bremer.—I wish to say that cholera invaded just those places where there was the most misery and filth, in the lowest quarter of the city of Naples; it is among the low classes, the poor people, that the disease is most prevalent. In Toulon, as I have stated, the cholera also infested the dirtiest places, and so I think it is in almost every case.

Dr. Pollak.—In Genoa it was the richest part of the city.

Dr. Bremer.—In Genoa it was the part which was supplied by the canal, which was infected with the cholera poison on account of a case occurring up the river where the cholera dejections passed into the water, which flowed into the canal. In Paris,just at the present time, the disease broke out in the lowest quarter of the city. Where there is wealth and where there is cleanliness, where there is fresh water and plenty of it, there is, as a usual thing, no cholera. Of course there can be cholera in rich houses, which in spite of their splendor are dirty, because there is such a thing as an invisible dirt. I might add that cholera is a very capricious disease and its nature is very difficult to unravel and to understand. But the theory of Koch and his discoveries and their interpretation will lead to explain a great many seemingly contradictory facts, facts that have been heretofore considered impossible to explain. Such for instance is the epidemic of Moscow in the depth of winter, which can only be explained on the theory that people being crowded together and not taking the necessary care and observing cleanliness, letting the soiled linen and the feces, perhaps, stand in the room,thus contaminating the victuals; I think that in this way the disease could become propagated and kept up. In regard to quarantine I believe a word might be said; I am of the opinion that the most rigid quarantine should be enforced in this country, because it is possible. I do not believe in the doctrine of Professor Guerin of Paris, who believes that cholera nostras—native cholera—and cholera Asiatica are identical diseases. He says, disseminate the sick, and do not allow them to be crowded together and you will not have a cholera epidemic. I believe in excluding everything which would tend to the production of cholera, and I think with a little precaution it can be done. Of course quarantine by land is entirely worthless,but a quarantine by sea can certainly be effectual.

Dr. Hughes.—I wish to say that I do not believe that cholera is a filth disease. I do not care how emphatically that is recorded.

Dr. Dean.—Do you believe it is a preventable disease?

Dr. Hughes—Yes, sir; I believe it is a preventable disease. I do not believe, however, that cholera is a filth disease, and I believe that Koch's own researches, in which he demonstrates the truth of his assertion that the bacteria of decomposition will destroy or at least arrest the development and multiplication of comma-bacillus, supports this position. Koch is a searcher after truth, and any one who will read carefully his statements and follow him through his investigations will see that he is not a sensationalist. This was one of the facts which he asserts as the result of observation, that the bacilli of decomposition arrested the multiplication of the comma-bacilli; then it is reasonable to conclude what has been asserted before and what has been long the suspicion of the professional mind, that cholera is not a filth disease, although it is a favorite theme with sanitarians; it is the burden of song of every man who talks about public hygiene and sanitation that cholera is a filth disease, and that if you only clean up will you not have cholera. Well, that cleaning-up process is always resorted to whenever there is a cholera scare. I am not skeptical in regard to the comma-bacillus; I do not see how any one can be with the evidence before him; it seems to be a fact of such patent demonstration as not to be gainsaid. But filth has this to do with the development and progress of cholera; a filthy atmosphere tends to produce a depraved state of the blood, it produces difficult innervation of organism, it impairs the powers of resistance, and it produces a condition of system in which a healthy gastric juice cannot be produced sufficient to destroy the comma-bacilli if they find their way into the stomach. It was

demonstrated by Koch himself, that the coma bacillus cannot live in the gastric juice of animals, and this is one of the explanations which he makes of the immunity, if I am not mistaken, of vigorous animals—the immunity which they manifest in regard to cholera in vicinities in which cholera abounds—and if we take a vigorous man who has a healthy gastric juice and introduce into his stomach a few comma-bacilli I wouldn't. expect them to live in the gastric juice any more than we would expect the seminal liquid to live in water. The cholera in 1849 did invade the premises of the rich. But there is something besides filthy surroundings which tends to break down the organs and impairs resisting power; there is something besides a vitiated atmosphere that operates upon the organism of man and unfits him to resist an epidemic. It is the resisting organism,a well-toned organism, that offers the best safeguard against the inception of cholera, in my opinion.

CONTRIBUTIONS.

ON THE PRESENT STATE OF THE CHOLERA QUESTION.

BY DR. L. BREMER.

Read before St. Louis Med. Society, Nov., 1884.

For the fifth time since 1830 the cholera has made its appearance in Europe. Experience has taught us that every one of the preceding epidemics made the circuit of the globe as far as it is inhabited by civilized nations. The probability, then, is that at no distant day we also shall find ourselves face to face with the dreaded enemy of humanity. The present outbreak in conjunction with the discovery of the comma baccillus has given a fresh interest to the question and infused a greater impulse of investigation into the medical profession than ever before. It may, therefore, not be amiss to present to your body in as concise a manner as possible the principal features of the cholera question of to-day. There is, perhaps, no disease in the whole realm of nosology, on which there is a greater diversity of opinion as to etiology and treatment.

About the epidemic character of the disease there can be, of course, no reasonable doubt; but whether it is personally contagious or infectious by the intercession of other agents, is a point about which much ink and many words have been wasted. There are even at the present day two opposing factions who may be called the localists and the contagionists. The former, under the leadership of Pettenkofer, hold that cholera is not transmissible from person to person, that the cholera germ, as it is contained in the choleraic dejections is inert, not pathogenic, and that in order to obtain its ripeness, and thereby its infectious qualities, it has to pass into the ground. On the quality of this, on its porosity, moisture and temperature it will depend whether the unripe germ as it leaves the intestines of man, will attain its full development, and thereby its virulence. It cannot be denied that a great many observations made during former epidemics speak in favor of the localist theory. There is, in the first place, the remarkable immunity of certain towns and districts that seems to speak strongly against the contagionist doctrine. Versailles, although in the immediate neighborhood of Paris, was never known to be infected with cholera. The same is true of Falun, of Cheltenham (England) and of the Island of Martinique. For all these places the followers of Pettenkofer claim an unfavorable soil to the development of the cholera germ. Again, there is the weighty testimony of authorities. Niemeyer, while a practicing physician at Magdeburg, held naked cholera patients in his arms preparatory to wrapping them up in blankets without contracting the disease. Ricord, during a discussion before the Parisian Academy of Medicine, about two months ago, related the following fact: When the cholera appeared for the first time in Paris, in 1832, his two colleagues of the Hopital du Midi, (reserved for the treatment of venereal diseases exclusively) thought discretion the better part of valor, and in the face of an unknown enemy quit Paris and betook themselves to the rural districts, leaving him in charge of the hospital. Soon his special patients were replaced by choleraic ones. He had to treat 600 daily on an average. The mortality was fearful, fresh patients succeeding rapidly the dead. Yet, none of his remaining special cases, none of the physicians and none of the employes of the hospital took the disease. This striking immunity of the previous inmates of the hospital was at that time thought due to the impregnation of the walls of the building with the material usually employed in the treatment of venereal diseases, a supposition which proved erroneous shortly afterwards. At the same period, Ricord gave an operating course on the cadaver, to a large class of students. All the corpses were those of persons dead from cholera. None of the students were in-

fected. Since that time Ricord has been a staunch disbeliever in the contagiousness of cholera.

Another observation is the astounding rarity of the disease on board the ships. During the Crimean war the ship Calypso took 400 men from Constantinople to the Dobrudscha. Out of these, 220 (I quote from memory) died with cholera, whereas none of the equipage was attacked.

Such facts, out of many, may be adduced in favor of the localist doctrine.

The contagionists do not believe that the soil has anything to do with the propagation of cholera. As a proof of the correctnesss of this view, it may be mentioned that some instances of ship epidemics are known which lasted more than four weeks, whereas Pettenkofer himself holds that the utmost limit of incubation is only three weeks. There is also an example on record where a pilot, coming from a district entirely free from the disease, approached a ship of cholera-stricken passengers, and, without getting on board, took the disease, together with one of his hands, and communicated it to his family. The formidable winter epidemics of Moscow at —20° C. and of Orenburg at —30° C. speak also against the necessity of the intervening of a favorable soil.

Koch takes a mediating ground between the pure localists and pure contagionists. By discovering the comma-bacillus and studying its life properties he has thrown a great deal of light on occurrences that could not be satisfactorily explained by either of the theories mentioned.

The pith of this discovery may be stated in substance as follows: On examining the dejections of cholera patients and by making microscopical cuts of the small intestine of persons dead from the disease, he discovered invariably the presence of the micro-organism which, from its form, he calls the comma-bacillus. He never saw it in the blood, urine, sweat or vomit. The bacillus can be cultivated on appropriate nutritive substances, such as gelatine, potatoes, fruit, etc. It is endowed with the faculty of motion, and under the microscope is seen to dart with great velocity over the field of vision. It multiplies with an extreme rapidity and attains in a short time its maximum in substances of an alkaline reaction, whereas acids, even much diluted, arrest its development or destroy it. When dried for three hours it ceases to live. In Egypt, the East Indies and in France he invariably found the comma-bacillus in cholera patients. He made about one hundred autopsies in all. Its favorite seat of invasion is the lower end of the small intestines. Here it penetrates the epithelium of the tubular glands, invades the submucous tissue and even the muscular wall of the gut. The epithelium is shed, the naked capillaries project into the lumen of the intestine, an extraordinary transudation of serum takes place, constituing with the epithelial shreds suspended in it, the notorious rice-water stools. The number of the bacilli corresponds with the severity of the case. At the height of the disease the dejections amount almost to pure cultures. The clinical phenomena and the pathological changes are brought about by a poisonous chemical substance[1] taken up by the blood and acting morbidly on the tissues, the nervous system particularly. In order to control the correctness of his observations, Koch examined the contents of the intestines of a great number of persons suffering from other intestinal trouble, likewise those of healthy persons.In not a single one of these cases was the bacillus met with. In persons convalescent of cholera it was also absent.

The crucial test, i. e., the physiological experiment of inoculating the bacillus on animals, was not possible, because there is no animal known which is spontaneously subject to the disease. The various cases of cholera in animals reported during epidemics lack authenticity. Hence, his experiments on dogs, monkeys, rats and mice, etc. failed. The experiments of Dr. Richards, of Goahunda, (India), who fed hogs on choleraic dejections and saw them die with convulsions in from fifteen minutes to two hours, must also be set down as negative. They were clear cases of poisoning, not of infection; for hogs fed on the dejections of those that succumbed remained perfectly well.[2]

From the constant occurrence, then, in the dejections and in the intestinal mucous membrane of the bacillus, and by its utter absence in healthy persons or those suffering from other diseases, Koch concluded that there is a relation of cause and effect, and that the microbe in question is specific in character and the ultimate materies morbi of cholera.

A fortunate circumstance enabled him to furnish a pretty positive proof of the correctness of his position. During one of the local epidemics that are so frequently observ-

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1. Secreted by the bacilli.

2. Nicati and Reitsch have since succeeded in producing typical cholera in dogs and guinea pigs by tying the ductus choledochus and then introducing pure cultures of comma-bacilli. (Semaine Medicale, 1884, No. 38.)

ed in India, and that are often confined to very small communities, he examined the water of the tank which supplies the people living around it, for culinary purposes and washing.

On microscopical examination this water was found to be swarming with comma-bacilli. Not only had the inhabitants of the place been washing the linen of cholera patients in the tank, but choleraic feces had passed into it. In the stagnant water, rich in organic material, the parasite had found an excellent soil for multiplication.

That water is a frequent medium of choleraic infection, few doubt to-day. Wells have often times been known to be the source of the disease. Their filling up arrested the mortality among those that obtained their water from them.

John Simon showed that in London, in those houses that derived their water from that portion of the Thames River, which is contaminated by sewerage, 10 per 1,000 were attacked by cholera; where the inhabitants used the purer river water, only 3.7 per 1,000 took the disease. In 1866 the number of cases among those inhabitants who used the bad water of the East London Water Company ranged from 63 to 111 per 10,000, whereas the other parts of London showed only a mortality of from 2 to 12 per 10,000. Before 1870, when Calcutta was provided with good water by an aqueduct, the mortality from cholera was excessively great. Since then it has been reduced to one-third.

The Bethlehem Hospital in London, supplied by an artesian well, had in 1849 among 400 inmates, no case of cholera. It was the only one supplied with spring water and the only large lunatic hospital in London which escaped.

The most recent report comes from Genoa. In this city, during the recent epidemic, 90 per cent. of all the deaths took place among those inhabitants that used water supplied by the canal Nicolai which furnishes about 40 per cent. of the city's water. This canal leads to Genoa the water of a river on the banks of which is situated a village where the epidemic declared itself first. All the public institutions supplied with this water, including the bagno, were visited by the epidemic. On certain points two neighboring houses used, the one canal water, the other water from another source. The house supplied with canal water had to pay its tribute to the cholera, whereas the other remained free. Lasty, since the canal water has been cut off from the city, the epidemic had disappeared.

In Spezzia (Italy) when the recent epidemic carried off an immense number of victims, it was ascertained that the linen of some persons who had come from Marseilles had been washed in a little river which furnishes water to a portion of the town. The woman who did the washing was the first person attacked. Four days afterward the disease appeared in its severest form in those parts of the place that used the water of the infected river.

Other well known facts connected with cholera are equally well explained by the bacillary doctrine. Washerwomen handling the body linen of cholera patients have frequently been known to be infected. According to Koch's experiments there is now no better cultivating medium for the cholera bacillus than damp linen.

It has been often noticed that an epidemic would gain in intensity after heavy rains. This, too, is readily understood. Dryness kills, and moisture favors the multiplication of the bacillus. Besides the filth of the streets, the natural soil of the parasite, fecal matter from overflowing cesspools will be washed into the wells.

I will, however, mention in this place that Pasteur is opposed to Koch's opinion on this point. He believes that the cholera germ, which to him is not the comma-bacillus, survives the drying process and that dust is more favorable to the propagation of the disease. In support of this view his pupil Dr. Roux has adduced statistics from Bengal showing that the outbreak of the epidemics coincide with the dry season. Still, it is very improbable that the atmosphere is a carrier of the infection. Whether the suggestion of Koch not to sprinkle the streets during cholera epidemics, is a good and a practical one, is, to say the least, very doubtful.

But there is one point on which all agree: that filth and putrefying animal and vegetable matter in the streets constitute a very hotbed for the germ. It is to the miserable condition of the streets in the densely populated quarters of such places as Naples, Marseilles and Touloh that the fearful mortality of the inhabitants must be ascribed. The state of affairs in the latter place is almost inconceivable and would not be credible if it was not printed in a report to the Academy of Medicine of Paris. There are in that city no privies. In the morning everybody takes out his chamber-pot and empties its contents in the gutter. The state of affairs can be better imagined than described and the danger such a place constitutes for a whole country or an entire continent has been amply exemplified during the present epidemic.

We may congratulate ourselves that there is no Toulon in this country.

From the preceding remarks it results that for the development of a cholera epidemic a local as well as a seasonable disposition are the chief factors. A porous soil, impregnated with organic matter and having a certain amount of moisture, is a favoring circumstance, although not essential or absolutely necessary to the propagation of the disease. A temperature below 17° C. will arrest the development of the bacillus, hence the fear of the summer months during which the parasite does not only grow inside of the human body, but also outside of it on any substance containing the essential elements for its nutrition.

The severe epidemics of Moscow and Orenburg during intensely cold weather are to be explained by the crowding together of the people, and by direct swallowing of germs as they come from the diseased. The way from hand to mouth is not long.

In addition to the outside condition of soil and season, the individual disposition plays a very important part. As a rule such persons only are stricken by the disease as have a deranged digestion, whose stomachs do not furnish the normal acid which destroys the parasite.

Another highly important question is the relation between cholera morbus and epidemic cholera.

In spite of thier clinical and pathological identity, the practical physician has always looked upon the two as different in kind and etiology. To him the epidemic form was always an imported disease, never originating outside of the Delta of the Ganges. With the exception of some older French pathologists belonging to a former generation very few will be found who believe in any connection whatever between the Asiatic and the indigenous cholera.

The etiological difference seemed to be established beyond a doubt by Koch's discovery of the comma bacillus, when Finkler and Prior announced at a meeting of the German naturalists held at Magdeburg that an identical parasite occurred regularly in the intestinal canal of cholera morbus patients. Koch himself seems to have admitted a morphological similarity, though insisting on the specificity of his comma bacillus.[1]

If the fact should be established without peradventure, that in all cases of cholera morbus the comma bacillus is to be met with, the unicists would have a better prospect of seeing their theory substantiated. But the occurrence of the parasite in those patients, if it really should be the same, admits of other interpretations.

Pasteur has shown that there is not the slightest morphological difference between the most virulent anthrax bacillus and that found in the mitigated anthrax vaccine. May not the bacillus of cholera morbus entertain the same relation to that of true epidemic cholera as the bacillus of anthrax vaccine does to that of true anthrax,and,what is more, may not an attack of cholera morbus impart to the individual an immunity against Asiatic cholera? We know that one attack of the latter insures this immunity at least during the same epidemic, and it seems not irrational to bring the new discovery into connection with Pasteur's and Jenner's discoveries. But who can guarantee that the cases examined by Finkler and Prior were not Asiatic in character. It does not always take a death or a great number of such to establish the diagnosis of genuine cholera, nor will it do to say that he who survives did not have cholera but only cholera morbus. Even the Asiatic type may be very benign; persons affected with it may walk about, travel, infect other places, where the disease may take on a virulent character, and escape themselves unhurt.

The investigations of Finkler and Prior were made at Bonn on the Rhine, a place crowded with travelers of all nations during the summer months. It would certainly be an easy matter to establish the fact that among them were to be found fugitves from Toulon and Marseilles. The question would assume quite a different aspect if the comma bacillus were found in the absence of any trace of an epidemic in undoubted cholora morbus cases.

The experiment of Klein performed on his own person by swallowing feces coming from cholera patients has no scientific value. The same is to be said of that other person who first disarranged his stomach and then swallowed the infectious material with a negative result. The cholera virus is not an universal one; else its ravages would be immensely greater than they are. By logical reasoning we are forced to assume that only a very small pereentage is susceptible of the poison.

For the present all reports contradictory to Koch's observations and conclusions have to be accepted with the utmost caution.

Of the various parasiticides that destroy the comma-bacillus the following may be

1. In his latest article on cholera (Deutsche Medicin-Wochenschrift of November 6), Koch has utterly refuted the conclusions arrived at by the two investigators named, as well as those of F. R. Lewis.

mentioned. Alum kills it in a solution of one per cent, camphor 1-300, carbolic acid 1-400, oil of peppermint 1-2000, sulphate of copper 1-2500, quinine 1-5000 and bichloride of mercury 1-100,000. The last named, then, would be the most powerful of all disinfectants, though the practicability of its employment is to be questioned. Acids of all kinds are to be particularly reccommended.

According to the experiments of Pasteur and Roux, the best and most reliable disinfectant for rooms is sulphurous acid obtained by the combustion of sulphur flowers impregnated with alcohol. From one-half to one ounce ought to be burned for every nine cubic feet of air. By this process not only were the cultivated microbes destroyed in the room, but the sulphurous acid was found to have penetrated the whole thickness of the mattresses. In order to protect the metallic objects in the room from the corroding influence of the gas it suffices to coat them with a layer of grease.

The prophylactic measures pertaining to personal hygiene may be summed up as follows:

The system ought to be kept at par, debauches of all kinds ought to be avoided, moderation in eating and drinking rigidly adhered to; all victuals, meat, fruit, etc., ought to be freshly boiled; also the drinking water; for a boiling temperature destroys the disease germs. Alcoholic excesses should be above all avoided. The body linen of the choleraic patients when soiled should be burned or disinfected by one of the solutions above referred to. By boiling also it will be rendered harmless. Slightly acidulated drinks are, perhaps, also of prophylactic value.

As to therapy we have, as yet,not been benefited by the discovery of the bacillus, opium, in various combinations, being still the sheet anchor in the treatment of cholera. Infusions of a ¾ per cent solution of common salt into the veins, to supply the lost water of the blood, and the incubator treatment during the stadium algidum, have signally failed. The most rational treatment according to the bacillary view would be to render the contents of the small intestines acid and thus deprive the parasite of the most essential conditions of existence. Whether this can be done, it is for the future to teach. I pass in silence the other remedies, whose name is legion and which have been employed with greater or lesser success in this and the preceding epidemics.

What are the prospects of St. Louis, in case the dread pestilence should cross the ocean and spread on this continent?

Our canalization, favored by the natural topography of the city, is excellent; the water we use both for domestic and other purposes cannot be surpassed in quality, in spite of its looks. Any germs that might be washed in from places higher up the river would not find the condition necessary for their multiplication, namely rest and organic material in sufficient quantity. Stagnant pools, the favorite breeding places of all infectious diseases, have, thanks to the efficient work of our local board of health, almost entirely disappeared.

There are scarcely any wells left that could communicate with cesspools or other contaminating places and thus act as carriers of the poison; we have comparatively little proletariat, no crowded or narrow streets; the general health of the city is almost proverbial,our streets and alleys are in a better condition than ever before; finally we have a population endowed with an instinct of cleanliness and the degree of education that prevails among the masses would render scenes as they were lately enacted in some of the stricken districts in Europe by the multitude maddened by fright and superstition, an utter impossibility. We may therefore await the arrival of the enemy, if come it must, with composure. But public cleanliness cannot be carried too far. Videant consules ne quid detrimenti capiat republica!

THE RELATION OF NERVE TO MUSCLE —BEING THE BASIS OF ANTIPYRETIC TREATMENT IN FEVERS AND INFLAMMATIONS.

BY R. E. HAUGHTON, M. D., INDIANAPOLIS, IND.

Read before the Mississippi Valley Medical Society, September '84.

[CONTINUED.]

We come now at this point to the question of heart beat to blood pressure.

"The law of Marey is found to be thus,viz.: The rate of the beat is in inverse ratio to the arterial pressure. A rise of pressure being accompanied by a diminution of pulse or heart-rate,and fall of pressure with an increase of pulse rate." This is only to hold good when the vagi nerves are intact. Now let us examine this proposition. If 6 ounces of blood are expelled by the systole of the ventricle, and we have 80 beats or contractions per minute, we have 480 ounces per minute.

Oz.	B.		Oz.	Temp.
4 to 6	80	=	480 per min.	98½°
4 to 6	120	=	720 " "	103½°
4 to 6	140	=	840 " "	106½°

Let us suppose it is 140 per minute, in a case of fever, then nearly twice the amount of blood in ounces goes into the blood vessels, as it did when the beat of heart was at 80, and if there is rise of one degree of temperature for every eight beats increased it follows therefore, other things being equal that the temperature will be increased above the normal about 8° of temperature.

If we calculate the heart beat at 120, we have on the same basis 5° of temperature, an increase which corresponds closely to what we observe in bad cases of fever. It is quite remarkable, also, that this calculation is sustained by experiments upon animals, as to the correspondence or otherwise of oxygen consumed and carbonic acid exhaled, as it is now definitely proved,and it is now accepted that the metabolism of the tissues is found to correspond to a definite relation shown to exist between the oxygen consumed and the carbonic acid exhaled. In health it is in nearly definite proportions. The ratio of oxygen consumed, to carbonic acid exhaled, bears a relation to a certain amount of metabolic action in the tissues, and Pfluger has shown that exposure to cold does most markedly increase the production of carbonic acid and consumption of oxygen in warm-blooded animals; and he also shows in his experiments by the use of the urari that the agency which causes increase of metabolic action in the tissues is nervous.

The fact is also well observed that while the relation of oxygen and carbonic acid is nearly equal in health, yet, when a state of pyrexia exists, the metabolic change of tissues "goes on with enormous rapidity." So, too, we find that in pyrexia, the same inverse ratio exists between the production of carbonic acid and consumption of oxygen, viz.: "With a rise of temperature above normal the production of carbonic acid is much more rapid than the consumption of oxygen and when the temperature falls below normal the production of carbonic acid diminishes more slowly than the consumption of oxygen." I think it now has been shown that two or more factors stand related to increase of temperature in fevers and inflammations.

1. The agency of the nerve centres in affecting inhibition or acceleration of heart action and pulse rate.

2. That this agency produces a dilatation or contraction of vessels, as may be most necessary.

3. That heart rate and blood pressure stand in inverse relation to each other, and in the same relation, or nearly so, as oxygen and carbonic acid in the metamorphosis or metabolic action of tissues, and that when pyrexia exists, the interchange of blood and tissue is rapid, giving rise to rapid production of carbonic acid, which shows rapid combustion or oxidation. We also show that the rapid metabolic change is not due to the consumption of hydro-carbons, taken into the system, as during fevers food is not taken so as to meet the waste. So we reach the conclusion, that the tissues—themselves—are consumed, viz., oxidation of them.

The Basis for an Anti Pyretic Treatment of Fevers and Inflammations, Including the Antagonism of Disease and also the Antagonism of Remedies.

We come now perhaps to the most important and practical part of the entire question. It seems very remarkable to my mind, to find such an array of facts, pointing to what would seem to be the most natural thing to be done in fevers and inflammations, viz., a reduction of temperature.

The stage called pyrexia has two factors or integers, viz. 1. Increase of temperature. 2. Accumulation of temperature. We start with a standard temperature 98½°, by which is understood that balance of vital forces, nervous, vascular, glandular, and muscular, in which such changes as nutritive, and metabolic are nearly adjusted so that animal heat has a standard, which standard is maintained in health, under marked changes of climate, without material modification. But when coming to some agency which disturbs the blood and produces alteration in the fluid, and especially its power of nutrition to the tissues, we find that the temperature, is increased, especially when the nerve centres are disturbed, as this is the first link in the chain of morbid events, viz., lesion of enervation. The lesion of the blood does not show itself till the nerve centres are disturbed, and this disturbance of centres, produce a local and secondary disturbance of heart and arteries. As vascular action is increased, the muscles and glands are touched by the same power, and more or less rapid change occurs—first nutrition, then rapid metabolic disintegration, in which the relations of oxygen and carbonic acid are rapidly displayed and coincidently secretion and excretion are either increased and retained, or increased and expelled. Hence the motto of physicians has been: "Do not lock up secretions," which may

be done to the great detriment of the patient. This rapid metamorphosis of tissue is aided by the condition of the vagus and vaso-motor nerves, which cause increased action of the heart and dilatation of the vessels. If the elimination of morbid products from the tissues is not affected rapidly enough, then at this point, added to that produced by the morbific germ or agent, is the greater contamination, which the extra-vascular currents experience, and which pour into the blood the accumulation from rapidly disintegrating tissues, so that lymph vessels and spaces are more or less obstructed, yet aiding the increasing contamination of blood, as shown by Prof. Carpenter, "by retention of excretions, absorption of septic elements, the result of too rapid metamorphosis of tissues with too little elimination." Hence it is not uncommon to find hyperemia, congestions, inflammations with results in various organs of the body, which prolongs or protracts the disease. The lungs, liver, brain, spleen and kidneys may all show more or less traces of this history in the structure, hence every organ in the body needs watching and examination. Frerichs finds that the liver, to be in a bad condition, and to produce compounds such as are (Leucin) not known in health, and the spleen in many fevers, becomes enlarged and sometimes congested even to extravasation.

Again, food being largely withdrawn the various alkaline and neutral salts no longer find their way into the blood. While non-elimination of the products of tissue change, may give rise to cerebral, pulmonic, hepatitic and nephritic inflammation, and the glands of the intestinal tract in typhoid and typho-malarial fever become inflamed, ulcerated and occasion possible hemorrhages I believe that the heat of the body when not controlled for many days, burns up the proper tissues and thus result the changes which we call inflammatory.

First, heat is increased. The means of such increase have been pointed out. Second, there is an accumulation of heat. The body has been shown to be a machine for generation of normal heat and also it has been shown how the heat may be accumulated in the internal organs, where the tissue change may be most rapid, as in the vital organs, and where blood circulates most largely and rapidly, thus producing the rapid metabolic action before spoken of.

This leads us to the indications, viz.: Lessen temperature and lessen its accumulation in the internal organs, muscles and glands, as here are found the rapid sources of heat, especially glands and muscles. For instance, a man who is muscular, strong and active is sick with fever. His weight is 180 pounds. When recovery takes place he will weigh probably 125 pounds and be but a shadow of what he was. His muscles have lost more than any other structure, and here is a large portion of the metabolic change which consumes his muscles as a process of combustion.

Drs. H. C. Wood and Reichert have published the results of fifty experiments with the purpose of determining the exact nature of anti-pyretic remedies. They found that bodily temperature is the result of the play between two antagonistic actions or functions, viz.: the production and dissipation of heat, and the object of the experiments was to determine to which of these actions the remedies used contributed. In seven experiments with quinine, production and dissipation of heat were both increased and except in one experiment, where the effects were equal, the dissipation of heat was increased above or beyond the production. So far the authors of the experiments do not assume that anything is proved by their experiments, except this, viz.: ·That at present we have no sufficient evidence as to whether it is heat production or dissipation which is primarily affected by cinchona alkaloids, alcohol or potash salts. "This does not invalidate the experiments and proofs made as to the causes of heat, and suggests also that the remedies used for the the purpose of prevention of heat formation, as well as those used for its dissipation, should be a class of remedies addressed to the nervous and vascular systems for the purpose of controlling heart and vascular tension, diminution of blood supply by lessening frequency; hence controlling rapid metamorphoris of tissue in waste. If our premises are correct we should find that such agents as veratrum viride, gelseminum, aconite, digitalis along with potash salts should not only control blood supply, but favor the molecular actions which must go on so as to dissipate heat by increasing secretion and excretion compatible with the safety of organ and function. In conformity with the fact that the heart action can be controlled in fever as in inflammation, and not unfrequently in both when the pulse and heart rate are reduced to normal or below normal standard, viz.: 80 per minute or below, the inflammation and fever either are both subdued or so controlled that convalescence is immediately established. "In the comparison of statistics it is found that less than six per cent of the total number have hemorrhage; of these less

than one-third die, or less than two per cent of the whole. About one per cent of the totality of cases results in perforation of bowel, and some of these finally recover. So that about three per cent is the entire morality from specific lesions." (p. 4., Fevers by Smythe. Monograph by Smythe.) To what are such lesions due,and of what character are they? They consist of hyperemias, congestions, inflammations and degenerations or softenings which affect the important structures, which affect the circulation and nutrition of organs, as heart and blood. The heart undergoes fatty degeneration, to some extent, and other muscular structures undergo the same process, and the deaths by asthemia are accounted for, which come suddenly, as failure of heart power. Rokitansky teaches the doctrine: "That fattydegeneration is a process of pathological change in the heart and blood vessels especially, and that the fatty degeneration is but the method by which structures undergoing such change are finally eliminated, as this process of metabolism is rapid and rapidly goes on during fever." When we remember that the single objective symptom of heat, or hyperpyrexia, is the prominent feature of fevers, and when it is also remembered that the changes of structure and final danger in any case is due to the excessive heat, and that the danger is in proportion to its elevation, and continuance so, we are brought to the prominent, and, perhaps, I should say, the most important indication in the entire history of symptoms, viz.: First lessen the temperature. The means for doing so have already been mentioned and I shall not enter into any discussion of the comparative value of them, only to say that those remedies are the most valuable in the control of temperature which control the blood supply,viz.: Those which affect control of heart and vessels through the agency of nerve control, which inhibit heart and vascular action. "Statistics upon this phase of the question show that with a purely expectant treatment, where the temperature did not reach 104° in typhoid fever, the mortality was nine per cent. When it rose above 104° but was below 105°, the mortality was twenty-nine per cent; when above 105° but less than 106°, the death rate exceeded fifty per cent, and when reaching 107° and above, recovery was rare." (Smythe; p. 8.)

This range of temperature indicating the danger point also corresponds to what has been shown to exist, and is true, in the table of estimates on heart rate and tension, as well as amount of blood, but especially with the estimate of the temperature, being eight pulsations of heart to 1° of heat increase, which gives us 103½° to 106½° of heat in a heart rate of 120 to 140 per minute.

Cold applications externally, as water by sponging, pouring, immersion and sheet pack, will reduce temperature, as I have tried it frequently since 1850. Very recently in this city I treated a girl of thirteen years, of a delicate constitution, having had rickets in early life and bad nutrition all her life, with veratrum quinia and wet sheet pack for eight days before the temperature yielded to the treatment. I devoted the entire force of the treatment, by all the remedies used, to the reduction of the temperature. On the eighth day the temperature was reduced to 98½, normal standard, after which it never rose again. The patient was cured. Such,I believe, is the power of remedies over temperature and securing its control in properly treated cases, and upon judicious principles. Herein,also, I believe, we have for a rule of action a basis of treatment for fevers general and special, as well as all acute or sthenic inflammations where temperature is dangerous to the patient.

[TO BE CONTINUED.]

IN MEMORIAM.

At a meeting of the Faculty of the Quincy College of Medicine, held Monday, October 13, 1884, previous to attending the funeral of Dr. David Bryan Baker, a committee was appointed to draft appropriate resolutions and report at the next regular meeting.

The Committee respectfully submits the following:

Whereas, With feelings of the deepest regret, we are called to mourn the sudden death of our late friend and associate, Dr. David Bryan Baker, Demonstrator of Anatomy in this College, removed from us in his prime and in the midst of a useful and honorable career, therefore:

Resolved, That while we bow in submission to the fiat of Him whose acts may not be questioned, we feel that by the death of Dr. Baker we have lost a faithful and energetic adjunct, our students a painstaking, thorough and conscientious teacher, our profession a hard worker and a careful and assiduous, though quiet student, and his friends of every class one who at all times, genial, frank and courteous, commanded the highest respect confidence and esteem; while as a physician, though latterly withdrawn from general practice, his patients, whether rich or

poor, ever found in him an attendant reliable, prompt and kind.

Resolved, That we extend to the family of our deceased friend our sincere sympathy and condolence, cherishing his memory in honor and tenderness.

Resolved, That a copy of these resolutions be sent (signed and attested by the Dean and Registrar) to the family of the deceased; that they be inscribed on the pages of the Records of the Faculty; also that they be published in the Quincy Whig, Herald, Journal and Review, and in the Weekly Medical Review and the Medical and Surgical Reporter.

L. H. Cohen, William A. Byrd.
Committee.
C. R. S. Curtis, M. D.
Dean.
H. Hatch, M. D.
Registrar.

CORRESPONDENCE.

LONDON LETTER.

Editors Review.—The most important event in the scientific world, so far as medicine is concerned, since my last letter is the admission by Sir Joseph Lister that carbolic acid was not perfectly reliable as an antiseptic agent. At a meeting of the Medical Society in October he commenced his paper by saying: "When in an address delivered at the opening of last session I expressed myself in what some of my hearers regarded as terms of overweening confidence in the trustworthiness of antiseptic treatment, I little thought that a year later I should have to tell you of failures on my own part." Yet such was actually the fact. He had had a death in his own practice from what he designated as a form of spurious septicemia, and this had set him to work to devise some better antiseptic. The result of these cogitations and experiments was the paper which he gave to the Medical Society on corrosive sublimate as adressing. After a number of careful experiments he found that corrosive sublimate formed with the serum of the blood a compound which retained the antiseptic properties of the corrosive sublimate. It was an albuminate of the compound corrosive sublimate, and was not only innocuous as regards the skin but thoroughly antiseptic in all its properties. Thus the discharge from a wound in passing through a sublimate dressing became associated with, but not precipitated by, the contained sublimate and the sublimate in this way was rendered very much milder in its action and could therefore be applied in a more concentrated form. As an antiseptic he had found it thoroughly trustworthy and equal to freshly prepared carbolic gauze. If serum were treated with a certain amount of sublimate not sufficient to make it solid it could be kept for any length of time.

The first Bowman lecture was delivered by Mr. Jonathan Hutchinson at the Meeting of the Ophthalmological Society last week. The lecture was founded by the Council of the Society a year ago to commemorate the valuable services to the Society of Mr. Bowman as he then was, in having been the first president and thereby done much to secure the success of the Society at its first starting. By a curious coincidence at the same time Sir William Bowman was considering how best he could promote the welfare of the Society after his retirement from the presidential chair and he decided to guarantee to the Society the sum of £50 a year for twenty years in order to enable them to start a library of ophthalmic literature, and to secure, that for the next few years at any rate, they should be quite easy on the score of money matters. These two projects ripened independently of each other and became known about the same time. Mr. Hutchinson chose for his subject the diseases of the eye in relation to gout, and I would earnestly recommend it to your readers if they get the chance to read the lecture for themselves; it is published in full in the London Journals of this day's date. I shall not attempt to analyze it, as I could not do it justice. Suffice it to say that it deals with the subject in the masterly manner in which Mr. Hutchinson treats every subject he writes about, and that it was listened to by an audience, in every way, both as regards numbers and standing in the profession, worthy of the lecturer, and of the eminent man in whose honor the lecture was founded.

Whilst on the subject of the Ophthalmological Society I may mention a very interesting paper read by their late, first and indefatigable secretary at a previous meeting of the Society on amblyopia and nervous depression resulting from exposure to the vapor of bisulphide of carbon and chloride of sulphur. He had one case of his own to narrate and he communicated one from Professor Fuchs, of Liége, and referred to a paper by Dr. Alexander Bruce, in the Edinburgh Medical Journal, in which the first mention of the disease was made. The subject being somewhat new and very little evidence being forthcoming, a small committee was nominated by the president to investigate it and report at a subsequent meeting.

I see from the last number of your journal that has reached me, that cocaine is finding favor with practitioners in your part of the world; it seems

to be equally successful here, for two of our weekly journals have papers this week recording the success the writers have had with it, and the laryngologists are also speaking well of it in their specialties.

At the Pathological Society, as usual, a great variety of interesting specimens have been brought forward; amongst them I would especially note Dr. Wickham Legg's fatal case of hæmophilia in which a microscopical examination was made of all the tissues and especially of the blood vessels by the ablest histologist in our country, viz: Dr. Klein, with the result that no changes could be detected. Dr. Percy Kidd's observations of changes in the coats of the blood vessels made a few years ago are therefore not confirmed, and we must once more admit that we are not on the right track as to the nature of this remarkable and rare malady. Another paper of interest and importance was that of Dr. Acland on two cases of paraplegia from disease of the spinal cord in which ulceration of the intestines was found after death, which he regarded as a nutritive disturbance, analogous to the skin changes so well known. The paper was read in such very brief abstract that it is impossible to discuss or criticize his views, but I believe it is the first attempt to connect lesions of the alimentary canal with chronic disease of the spinal cord.

A great debate was commenced at the last meeting of the Clinical Society on the identity or not of rheumatoid arthritis and the joint changes found in locomotor ataxia; the discussion arose on a paper by Mr. Morrant Baker, one of the surgeon's to St. Bartholomew's Hospital, and well-known as for many years the editor of Kirke's Handbook of Physiology. As the debate was adjourned I had better defer any comments on the paper until my next letter when I shall hope to be able to give you a summary of the whole discussion.

Yours Faithfully, R. M.

London, Nov. 21, 1884.

ITEMS.

—Dr. Adam Groesbeck, one of Chicago's old citizens and able practitioners, died recently.

—Dr. Roche states (Lancet, April. 1884) that five drops of tincture of cantharides three times a day is a good remedy for children suffering from incontinence of urine. It renders the neck of the bladder sensitive, and the stimulus of the urine keeps the sphincter tonically closed till voluntarily overcome at the micturition time. In children want of tonic contraction in the sphincter, and not excessive sensitiveness and spasmodic effort in the body of the bladder, is the most frequent cause of nocturnal enuresis.

—In an address at the hundredth anniversary of the Harvard Medical School Dr. Oliver Wendel Holmes said: "I have often wished that disease could be hunted by its professional antagonists in couples, a doctor and a doctor's quick-witted wife making a joint visit and attacking the patient, I mean the patient's malady of course, with their united capacities. For I am quite sure that there is a natural clairvoyance in a woman which would make her the superior of man in some particulars of diagnosis as she certainly is in distinguishing shades of color. Many a suicide would have been prevented if the doctor's wife had visited the victim the day before it happened. She would have seen in the merchant's face his impending bankruptcy while her stupid husband was prescribing for his dyspepsia and indorsing his note; she would recognize the lovelorn maiden by an ill-adjusted ribbon, a line in the features, a droop in the attitude, a tone in the voice, which mean nothing to him, and so the brook must be dragged to-morrow. The dual arrangement of which I have spoken is, I suppose, impracticable; but a woman's advice, I suspect, often determines her husband's prescription. Instead of a curtain lecture on his own failings he gets a clinical lecture on the puzzling case, it may be, of a neighbor suffering from a complaint known to village nosology as 'a complication of diseases,' which her keen eyes see into as much better than his as they would through the eye of a small-sized needle. She will find the right end of a case to get hold of, and take the snarls out as she would out of a skein of thread or a ball of worsted, which he would speedily have reduced to a hopeless tangle."

—The Bavarian Minister of War has just issued an order that the salicylated powder hitherto used by the troops on march as a remedy against perspiration of the feet shall be replaced by a pomade composed of two parts of salicylic acid in 100 parts of mutton fat. Each soldier is provided with 20 grammes of the pomade, which is to be applied daily. Daily washing is also ordered.

—Several German journals allude to the efficacy of "benzol magnesia" as a grease-eradicator. It is prepared by saturating calcined magnesia with benzol. A little of this powder rubbed on a greasy stain on paper, or any fabric, will remove it, but old stains may require a repetition of the process. The mixture is said to be excellent for cleaning windows.—Canad. Pharm. Journ.

—Mustard-pencils (Crayons Sinapismes) have followed the menthol-pencils in Germany. They are recommended to produce counter irritation by rubbing behind the ear in faceache, on the temples in headache, and on any affected part for rheumatism.

THE WEEKLY MEDICAL REVIEW.

VOL. X. No. 24. CHICAGO AND ST. LOUIS, DECEMBER 13, 1884. TERMS: $3 A YEAR.

A PROPOSITION TO DRS. KLEIN, VULPIAN AND PETTENKOFER.—On several occasions the readers of the REVIEW have been informed of the eccentric undertaking of several scientists in making meals on the comma-bacillus. We need not repeat why we consider the experiment of no significance. The comma-bacillus is arrested in its multiplication and, as Prof. Cantani has shown (see REVIEW, December 6, 1884), even its motility is suspended for quite a time in a medium of acid reaction.

Now of late Vulpian, of Paris, is reported as having swallowed pills made up of dejecta of cholera patients. And Pettenkofer of Munich comes forward and offers to swallow bacilli of Koch's own cultivation.

The suggestion we desire to make to these gentlemen, who are so anxious to determine a mooted question of such vital importance, is that they take cholera dejecta or pure cultures of the indubitable bacillus and administer such fluids in a fair amount to themselves by clysma, throwing the fluids as high up the intestinal tract as possible. Then an alkaline medium is given at once and the bacilli are under favorable conditions for multiplication and mischief. This is a proposition based upon the physical requirements of the microbe, and would possibly yield results, positive or negative. If repeated in the "hundreds," that Pettenkofer is so sanguine as to suppose will lend themselves to a fair trial, then we may arrive at conclusions.

The bacillusit, seems certain, can not thrive after being subjected to the healthy gastric secretion; and even if a gastric and intestinal irritation be first induced, such an artificial procedure, that may create conditions wholly at variance with those that obtain in the invasion of the organism by cholera, will not prove a true test.

So far as we know, the experiment suggested has not been tried. And we hope that the readers of the REVIEW will hear about it by those concerned, Koch and his followers on the one hand, and the microbe-feeders on the other.

We believe there is no specimen of the comma-bacillus in the United States. A Berlin friend has promised to send us a slide and our St. Louis colleagues shall then at once be introduced to the object of so much anxiety and distrust.

REFLECTIONS RELATIVE TO ACTION IN CASES OF INTESTINAL OBSTRUCTION.—One of the most practical lectures which has been delivered during the year in the medical world is the Harveian Lecture delivered before the Harveian Soceity of London by Thomas Bryant, F. R. C. S. Its value consists in its simplicity and eminently practical nature. As a matter of fact it is little more than a careful and judicious publication of notes from the dead-house or the autopsy record, associated with well digested generalizations. Whilst we say it is little more than such notes we by no means desire to diminish the praise we accorded to it at the beginning. In fact we consider it so eminently practical that we would gladly incorporate it as a whole into the REVIEW. It is published in the British Medical Jour., November 22, 1884. We must, however, content ourselves by saying that it constitutes a careful discussion of the "Mode of Death from Intestinal Strangulation and Chronic Intestinal Obstruction." Much advantage has unquestionably been gained from large enemata into the bowel, under such circumstances, and possibly some has been obtained from inflation of the bowel, but the

dark side of the story has, we think, never before been clearly and forcibly brought to light. Mr. Bryant certainly has done this, and we predict that the influence of this lecture will advance the operation of laparotomy almost as much as the operation of ovariotomy. Some several years ago, when inflation was spoken of with such ardor, a case very similar to several of those noted by Bryant, occurred in our own practice. The autopsy revealed adhesion bands binding down the ileum to the left abdominal wall, but it also revealed a longitudinal rent in the colon brought about by the inflation. The lecturer reveals several such cases. We have no doubt that others will take up the work begun in this direction, and that the question of laparotomy for gunshot wounds of the intestines and for well-defined cases of intestinal strangulation will in a short time become a well defined surgical operation, and recognized as such in the text books. We append Mr. B.'s final remarks:

'By way of conclusion, I would lay down the following as rules of practice.

1. Laparotomy should be undertaken as soon as the diagnosis of acute intestinal strangulation is made. There should be no delay allowed for the formation of a specific diagnosis of its cause. It should likewise be proposed in all cases of acute intussusception and of chronic, which have failed within three, or, at the most, four days, to be relieved by other treatments.

2. In all operations of laparotomy it is to the cæcum that the surgeon should first advance, since it is from it he will obtain his best guide. If this be distended, he will at once know that the cause of obstruction is below; if it be found collapsed, or not tense, the obstruction must be above. Adhesions or bands are, moreover, more frequently near to, or associated with the cæcum, than with any other part of the intestinal tract. It is also in the right iliac fossa that the collapsed small intestine, in cases of acute strangulation, is usually to be found; and, with this as a starting point, the surgeon will have less difficulty in tracing up the intestine to the seat of strangulation than if he begins at a distended coil, when it will be a matter of chance whether he travels away from or towards the special object of his search—the seat of obstruction.

3. In laparotomy, when the strangulated coil of bowel is gangrenous, it should be brought out of the wound, and the gangrenous knuckle resected. The proximal and distal ends of the resected bowel should then be stitched to the edge of the wound, and an artificial anus established."

International Medical Congress.—We publish elsewhere the preliminary notice of the committee on organization of the International Medical Congress to be held in Washington in 1887. It will be seen from the notice that little or no departure will be made from the general arrangement, which has hitherto served the preceding Congresses so well. Whether "Diseases of Children" has previously constituted a separate section or not we do not remember, but we certainly do not see the necessity of a separate section for that subject in an International Congress. That it might logically constitute a sub-section of some of the other sections we readily admit; but the general subject, diseases of children, may involve almost all the other sections.

We congratulate the committee on their early exhibition of work and we trust the profession in general will exert their best scientific,patient and persistent efforts to supplement the work the committee has begun.

The West, will she do her share? She is young, and just as we cannot, in the nature of things, expect from America so much scientific work as we do from Europe, so much less proportionately must be expected from the West than the East; but that does not relieve her from responsibility relative to her share. Better, however, that no presentation should be made than that the Congress should be burdened with work of no interest and we trust that whoever shall undertake the responsibility of deciding relative to the eligi-

bility of the various papers offered that they will fully realize their responsibility.

MISNAMED "LUMPY JAW" OR ACTINOMYCOSIS AND THE PUBLIC PRESS.—Chicago has of late furnished an instructive case of the evil which is sure to arise from the manifest tendency of the present day of trying to account for every little difficulty by the presence of parasites. Far be it from our thoughts to attempt in any way whatever to undervalue the great work accomplished of late in this department of medicine. But if we would properly appreciate the work of the men who have accomplished such results in this direction we must cultivate their spirit and move slowly. That mistaken observations will occur in connection with any newly defined disease is so well recognized that we should not have thought the matter worthy of consideration but for the severe strictures which one physician is reported by the public press to have made relative to another. That the one suffering the calumny was correct in his diagnosis we have personally, together with well known and capable men, had ocular demonstration. To make the question clear we must quote liberally from the public press.

Actinomycosis is certainly a rare disease among the human species. About three or four months ago a case is said to have occurred at the county hospital, and now a second case is claimed which throws "a flood of light" on the former case. That two such cases should occur in the practice of one physician within, say, four months, is certainly very improbable and ought of itself to have made the doctor more circumspect. The following is from the "Inter Ocean:"

"About one week ago Dr. J. B. Murphy left word at the County Hospital directing that a patient suffering from lumpy jaw be received there for treatment. No patient turned up, and the warden wondered what had become of him. A reporter called on Dr. Murphy last evening. He expressed great reluctance to speak on the matter, but finally said that some weeks ago a young Irishman named Carroll, who was then employed in a grocery on Harrison street, called upon him, complaining of a soreness and lump on his right jaw. The swelling was lanced, and Dr. Murphy, suspecting that this was a case of lumpy jaw, placed the pus from the sore upon a glass and examined it with his microscope. Animal life was discovered, and the specimens, which were excellent, showed him that his suspicions were well founded. Fearful that if the patient knew what the trouble was he would run away, he kept it from him. The wound healed. The pus was shown to other physicians, who at once pronounced his diagnosis correct. On November 18, Carroll again called to have his jaw lanced, as the swelling had greatly increased, and then Dr. Murphy told him what ailed him, and urged that he go to the County Hospital for treatment, telling him that it would cost him nothing. Carroll promised to do so, but did not keep his word, and has not been near Dr. Murphy since.

Search was made for Carroll, and after a long hunt he was found living with his sister, Mrs. Welch, in the rear of No. 131 East Huron street. He said his name was Thomas Carroll and that he was 20 years of age. He came to America from Ireland about twelve weeks ago, and has worked in a grocery on Harrison street, and has also worked on Ohio street, but for a few days past he has been obliged to remain at home. He first noticed the swelling about eight months ago, near a decayed tooth. After he came to America the swelling grew worse, and he went to Dr. Murphy, who lanced it twice. The last time he told him what the matter was, and that he had better go to the hospital, giving him a letter. He thought that it was not worth the time for such a little thing and so concluded to change his physician and went to Dr. G. F. Lydston. He did not tell Dr. Lydston what the trouble was or show him the letter, as he had mislaid it. Dr. Lydston lanced the swelling twice, the last time being Wednesday. Dr. Lydston did not tell him what the trouble was, but took out a part of the tooth. Since the swelling has been reduced he had felt better, the sore was nearly healed and he ate his meals regularly. * * *

"Here is my case of lumpy jaw," said Dr. G. Frank Lydston yesterday to a reporter for the Chicago Inter Ocean. The patient was a healthy-looking young man of rosy complexion, and presented no signs of constitutional disturbance. Under the right jaw an abscess had healed, and there was scarcely anything to show that there had been a swelling. The patient said his name was Thomas Carroll, that his jaw became swollen six months ago, accompanied by a toothache. An abscess had formed, and on consulting Dr. Murphy, it had been lanced several times. That gentleman, on subjecting the pus to a microscopical process, claimed that the patient was affected with actinomycosis, or lumpy-jaw, and advised him to enter Cook County Hospital and have operation performed. Instead of so doing Carroll consulted Dr. Lydston, who says he found a slight discharge, and that the sole trouble was a simple glandular abscess due to a carious molar tooth and alveolar abscess. Dr. Austin, the dentist, removed the offending tooth, and under simple treatment the patient is nearly well. Dr. Lydston says he is sorry to have cheated the staff of the Cook County Hospital out of so rare a case of "lumpy-jaw." Dentists and surgeons have seen many such cases. The case of Carroll shows that the microscope is a very illusory means of diagnosis. In this case Dr. Lydston thinks a dentist's apprentice would have been sufficient. He thinks it would be well for experts in lumpy-jaw to recognize that a lump under the jaw and the swelling of the jaw proper due to actinomycosis are a trifle different, irrespective of microscopes and optical delusions. Dr. Lydston says he will exhibit the "celebrated case" to any physician who may be pleased to call."

"A reporter for the "Inter Ocean" called upon Dr. Kerber last night to have him corroborate the statement made by Dr. Murphy that the disease of the young man Carroll, which the latter had treated, was indeed the terrible disease called "lumpy jaw." Dr. Kerber said there was no doubt of it; he had been familiar with the disease since its discovery in cattle by Professor Bollinger, of the University of Munich, in 1877. He had examined this case of Carroll's under the microscope, and there found unmistakable and most indisputable evidences of actinomycosis. "Dr. Lydston, to whom Carroll had gone after having received treatment from Dr. Murphy, characterized the disease as simply arising from a decayed tooth." "Decayed tooth," exclaimed Dr. Kerber, "why I saw the germ of the disease through the microscope as plainly as I see this picture," pointing to a drawing of a large and healthy-looking worm; "and the microscope don't lie; others saw the case, and made a diagnosis of it, and any doctor who says that was not actinomycosis either does not know what he is talking about or deliberately says what is not true. Dr. Lydston never saw a case of actinomycosis in his life or else he would not say what he has in regard to this matter. Dr. Murphy was the first man to discover the disease in this country, and he was better able to judge what was the matter with Carroll than was Dr. Lydston." "No, we do not know enough about the disease yet to have a specific for it," he continued, in reply to a question of the reporter. "It does not always come in the jaw, but attacks different parts of the body; and when it can not be surgically treated it proves a very serious matter. This is the second case Dr. Murphy has had. You remember the woman Murphy he had in the hospital. We made a complete and careful diagnosis of that case, and this one he finds to be the same."

We have to apologize for this long quotation from the public press but it is not uninstructive reading. It shows better than any exhortation a course of action, that for the dignity of the profession, should be righteously avoided. That Dr. Lydston was right in his diagnosis the result proves, for the offending tooth being extracted and a fortnight having elapsed without any further operation the "lumpy jaw" or "actinomycosis" has wholly disappeared. The value of the observation however, lies in the statement of Mr. Kerber: "We made a complete and careful diagnosis of that case and this one he

finds to be the very same." This statement will of course render the observations on the former case as valueless as those of the latter.

The value of the microscope is great. But just as more valuable practical information can be obtained from a comparatively large object by taking first an objective of low magnifying power, so preparatory to any observation by the microscope, a good general view of the situation should first be taken by the unaided eye. Otherwise "a decomposing oyster may be taken as a sarcoma."

Silicate of Sodium Bandage.—We are prepared, from actual experience, to subscribe fully the recommendation of silicate of sodium for rigid dressings, as made by Dr. E. O. Bardwell in the Jour. Am. Med. Association. "Silicate of sodium is a solution of silica and sodium carbonate, containing twenty parts of the former to ten parts of the latter; it is of a syrupy consistence with a specific gravity of from 1,300 to 1,400; it is also called soluble glass or water-glass; it possesses many advanges over starch, dextrine, or plaster of Paris, in that it is more easily applied, is more uniform in thickness, is more cleanly, and last, but by any means least, it does not contract on drying as do the others. The mode of application is very simple and easy, a common roller bandage is first applied, the joints and bony prominences being protected by cotton; this is followed by another roller which is painted in situ with the solution by means of an ordinary flat varnish brush. Other rollers are applied and painted in the same manner until four of five thicknesses of bandage coated with silicate are in position. This is usually sufficient, but if thought necessary, strips of the roller may be laid longitudinally between the bandages and coated likewise with the solution. Pieces of tin or zinc may be placed between the folds if thought expedient, but I have never required their aid, the bandage without them being very hard and stiff when dry, and effectually preventing the slightest movement of the fracture. The silicate commences to harden at once and is usually hard enough to cut in twenty-four hours, and if properly put on will keep the fracture in position from the time of application.

Chronic Dysentery and Voluminous Enemata of Nitrate of Silver.—Dr. Stephen Mackenzie before the Clinical Society of London, reported very favorably of large enemata of about $\frac{1}{3}$ of one per cent. solution of nitrate of silver in chronic dysentery. He claims no originality for the method, but detailed his procedure for the purpose of eliciting comment, and trial of the method by others. He detailed six cases, all of them had been previously treated by various other remedies more commonly in use to no purpose. The duration of the disease in the various cases extended from several years to as many months. The average length of time to effect a cure in the six cases was about five weeks, and the average number of enemata two. We regret to say that the reporter fails to indicate how long a time was allowed to elapse between the administration of different enemata. Moreover, we are told in the mode of administering the enemata, which we quote below, that "when long retained" it is advisable to inject a solution of chloride of sodium. How long "long" is, is not very clear.

The mode of procedure he adopted was as follows: "The quantity of nitrate of silver to be used was dissolved in three pints of tepid water in a Leiter's irrigating funnel, which was connected by India-rubber tubing with an œsophageal tube with lateral openings. The patient was brought to the edge of the bed, and made to lie on his left side with his hips well raised by a hard pillow. The terminal tube, well oiled, was passed about eight or ten inches into the rectum, and the fluid allowed to force its way into the bowel by gravitation. The injection rarely caused much pain, and often none. It usually promptly returned; but, when long retained, it was advisable to inject chloride of sodium, to prevent absorption of the silver-salt. Various strengths had been used from thirty to ninety grains to three pints of

water; but usually one drachm of nitrate of silver was employed. The treatment was based on the view that, whatever the nature of the dysentery, whether constitutional or local, in the first instance, the latter effects were due to inflammation or ulceration of the colon, which was most effectually treated, as similar conditions elsewhere, by topical measures. Sometimes one, sometimes two, injections were required, and in some cases numerous injections were necessary; but in all the cases thus treated, many of which had been unsuccessfully treated in other ways previously, the disease had been cured. In most cases other treatment was suspended, but in some Dover's powder or perchloride of iron, which had been previously administered, was continued or subsequently prescribed."

Proofs of Gout.—Jonathan Hutchinson of London, is one of our ideal observers, and it is with pleasure that we quote from his very suggestive lecture, delivered in honor of Bowman before the Ophthalmological Society of the United Kingdom, the paragraph on the above subject. Gout is a good deal more prevalent in Great Britain than here, consequently we do not deem the subject of sufficient interest to the general practitioner here in the West, to discuss the subject at large. In the British Medical Journal, Nov. 22, 1884, he says:

"It may be, perhaps, convenient to say a few words as to the kind of evidence which justifies a diagnosis of gout as the cause of any particular disease of the eye. In the case of humoral or acquired gout, there ought to be the history of one or more definite attacks of joint-inflammation, usually of an acute character, and attended by redness and edema, and followed by peeling; usually the great toe will have been the joint affected. Such patients will often state that they are very susceptible to the influence of beer and wine, and that malt liquor and some wines almost always cause indigestion, and make the urine muddy. These dietetic disturbances, to which, as a test of gout, attention was, I think, first claimed by Sir James Paget, are very important and valuable. If tophi be present in the ears or elsewhere, they are of course conclusive. In a few cases, we are justified in assuming the existence of humoral gout, although no paroxysm has ever occurred. If the dyspepsia be there, if the joints ache and prick after beer or wine, and if there be gout in relatives, we may confidently believe that it is present, although not yet declared. As regards the inherited form, we may take it as highly probable, whenever parents or grandparents, or any one of them, are known to have suffered definitely. If even uncles, aunts, brothers or sisters, or cousins have suffered from true gout in early life, the belief that a family taint exists becomes very probable. The evidence must always be carefully sifted. It will not do to take the statement of the patient without first carefully informing him as to the scope of the inquiry. Patients will often confess to gout who do not know what the word means, and a far more numerous class will hastily deny its history, although the facts, when correctly obtained, may be most conclusive. If, however, proper care be taken, and the patient, after being instructed, be allowed time for consideration—above all, if the inquiry be repeated after an interval, or if relatives be interrogated, then I believe that in most cases truthful data will be obtainable.

It may be inquired as to the value of certain affections which may be considered to belong both to rheumatism and gout, as symptoms of the latter. Permit me very briefly to avow my creed. I believe that the subjects of gonorrheal rheumatism are, in a very large majority of instances the inheritors of a gouty constitution, and that all the conditions usually classed as rheumatic gout are really, in most instances, dependent in a large degree upon like inheritance. Thus if a patient have had sciatica or lumbago, if he show nodi digitorum (osseous, not tophi), if he have suffered from chronic rheumatism affecting the smaller joints, I should think it fair to allow considerable weight to these facts as pointing to a taint of gout."

Muriate of Cocaine in Laryngeal Phthisis.—Dr. George M. Lefferts details in the Medical News his experiences with the famed local anesthetic as follows:

"All who have had any experience in battling with that most dread symptom of advanced laryngeal phthisis—the terrible dpsphagia—will welcome any means whichpromises to overcome it, and give even temporary relief to the patient. Such a means I believe we have in the much-lauded cocaine, and I desire to place the results of my experience upon record, both for the sake of the sufferers and in order that the profession may be made aware of the possibilities which are at their command.

In a large series of cases the results have always been the same. One case, as an illustration, will answer my purpose. In a patient the victim of advanced pulmonary and laryngeal phthisis, demonstrated to my class at the College of Physicians and Surgeons on Tuesday last, one in whom the act of deglutition had been an absolute impossiblityfor one week on account of the acute pain that it caused,together with the immediate reflex spasm and rejection of the smallest amount of fluid nourishment on any attempt at swallowing, so that the patient was slowly perishing in reality more from hunger and thirst than from his disease one application of the cocaine so anesthetized the acute sensibility that a full glass of milk was immediately drank before the class with ease and entire comfort. Each subsequent application in his case, as well as in many others equally well marked, has produced the same result, and, I may add, has notably relieved the element of dpspnœa, dependent upon the engorgement and swelling of the tissues, with consequent laryngeal stenosis, probably by producing temporary tetanic muscular contraction, in the fibres in contact with or surrounding the dilated bloodvessels.

One such example alone, however, is calculated to excite our warmest enthusiasm for a remedy which is capable of alleviating such a grade of human misery.

The application of the cocaine(a four per cent. solution) was preceded in each case by a thorough cleansing of the mucous surfaces and all ulcerated points of the larynx from thick, tenacious muco-purulent discharges by the spray-application of an alkaline solution(Dobell); the parts were then immediately bathed gently, yet thoroughly, by means of a large laryngeal brush fully charged with the cocaine solution. One such application answers the desired purpose."

Tracheotomy by Thermo-Cautery.—In a communication to the Société de Médicine à Strasburg, J. Boeckel reports infavor of thermo-tracheotomy, a method practiced as early as 1872 by Verneuil in France and Bruns and Voltolini in Germany. His report is based upon 61 cases. He arrives at theconclusion that in those cases in which the thyroid gland is not much developed and the skin is thin and without much fat, and the trachea therefore is presented superficially, that the knife is the proper instrument for operation. In all other events, however, B. warmly recommends thermo tracheotomy. He splits the integument with a bistouri and then slowly, and directly in the middle line, goes down to the trachea by means of a Paquelin thermocautor, heated to a moderate red heat. The trachea, and, if necessary, the cricoid cartilage is then divided by the knife. In no case did B. have hemorrhage during the operation, nor later when the eschara was cast off. In 44 cases recovery ensued and no stenosis of the trachea occurred.

Operative Treatment of Intrathoracic Effusion.—In a prize essay of the London Medical Society by Norman Porrit, the author recommends as point of election for operation the eighth intercostal space in the posterior axillary line. This point is covered by relatively thin muscular layers. The point is best determined by marking the position of the angle of the scapula when the arm hangs down and when it is raised. These points are joined by a line and the desired point lies one inch directly below the centre of this line.

Porrit does not consider the admission of air into the pleural cavity as dangerous, but advises that it be avoided, if possible. In making the puncture with nothing but a trocar and a rubber drainage tube, the introduction of air can be avoided by slipping the tube over the canula and then thrusting the stilet through the rubber into the canula. After the thorax is perforated the stilet is withdrawn andthe small opening inthe tubing made by the stilet immediately closes up; the end of the tubing is to be immersed in fluid, antiseptic or otherwise. The entire amount should not be drawn off, when the effusion is serous; thus alarming symptoms may be obviated.

In purulent effusions P. recommends incision. A trial-puncture may be made; then the knife is thrust directly through the intercostal space into the cavity; a grooved director is then introduced upon the keen edge and the opening enlarged.

Resection of a rib appears to P. to be, in all recent cases of empyema, an unnecessary aud cruel complication of the operation. The author also protests against irrigation of the pleural cavity and unnecessary exploration by the fingers. Early operation is advised, so that the compressed lung may be in the most favorable condition for re-expansion.

Weight as an Indication of the Character of Risks for Life Insurance.—Dr. Joel Seavern gives in the Boston Medical and Surgical Journal, of October 23, some facts formulated from the death tables of the Royal Arcanum, (containing the records of 974 deaths),which no doubt will prove interesting to medical examiners of insurance companies and beneficiary societies. He gives in tabulated form the records ot 138 deaths of persons whose weight was less than 20 per cent. below the standard, the standard weight being estimated in relation to the height of the individual. He shows that a weight of 15 per cent. below the normal standard carries with it a liability to constitutional disease, especially to chronic diseases of the lungs, even in cases where the family history is apparently free from such diseases. On the other hand, he finds that persons weighing over the standard weight may be considered as better risks, as the death records in these cases point out an increased ratio of mortality from acute diseases, at the same time showing that the number of deaths from cardiac and cerebral diseases is much smaller, than would be naturally anticipated. In concluding, he asserts that with regard to "light weights" the usual variation of 20 per cent., which is assumed to be within safe limits, is not safe; and if young men are accepted whose weight is 15 per cent. below the standard, it is approaching dangerous ground, and inviting, as it were, deaths from phthisis, etc. With the "heavy weights" the case is different. Provided that we see that heart and kidneys are healthy and that the family history does not point to cerebral disease, a margin of 25 per cent. above the standard is not dangerous in men who have not injured, or are not injuring themselves with alcohol.

CONTRIBUTIONS.

THE RELATION OF NERVE TO MUSCLE —BEING THE BASIS OF ANTIPYRETIC TREATMENT IN FEVERS AND INFLAMMATIONS.

BY R. E. HAUGHTON, M. D., INDIANAPOLIS, IND.

Read before the Mississippi Valley Medical Society, September '84.

[CONCLUDED.]

Antagonism of disease and remedy, also antagonism of remedies when administered one against another. If it be true, as stated, that the antagonism of remedies to disease must exist, as a basis of rational treatment, it is well for us to comprehend what the principal of action is. If we are in regular medicine upon the correct basis and our motto is correct contraria, contrarias, curantur then it follows that the principle of treating symptoms, or the motto of "similia similibus curantur" is not only not true, but is an assumption which is a fraud, and

has no foundation in scientific practice. It has been found in what has been presented in illustration of the facts of our subject, that rational medication is in fevers and inflammations founded upon the principle of the antagonism of remedies or control of remedies over certain central conditions of the pathology, viz. Blood supply and oxidation ol tissue. This is effected by regulating supply of blood, and thereby control of the oxidation. Also, to dissipate as rapidly as possible heat as it may have accumulated in the body. This is by antagonism, viz, cold is opposed to heat, therefore use cold. Blood is effected by remedies which slow the heart and increase blood pressure or tension, thereby diminishing the total amount of blood sent into the vessels, as see the demonstration p. 19 of the paper, thereby decreasing the total amount of oxygen carried by the blood into tissues by nearly one-half in the higher temperatures. This antagonism in its essential quality is a result of a remedy exerted upon nerve centres, which exert ordinary control over heart and blood vessels, for the purpose of regulating blood supply, and also in those extraordinary cases where the control is so much required. This is to-day called "The inhibitory" power of nerve centres over respiration and circulation, and remedies, when properly brescribed, have a good chance or rather certainty of effecting it, as it has been reduced to a mathematical and physical demonstration. Who does not now use digitalis, or aconite or veratrum when he would inhibit heat actions, and who does not know that digitalis, or is prescribed to-day as a heart tonic more than for any other reason? And the truth is veratrim under the same judicious administration, is a better heart tonic than the former, because more certain. Who does not know that opium contracts blood vessels by its effect upon nerve centres, and becomes thereby one of our best remedies in inflammations? And who does know, also, that belladonna dilates vessels and becomes thereby in its action upon nerve centres an antagonist of opium, and by this means may avert the poisonous action induced by opium or its alkaloids? So, too, in the antagonistic action required when veratrim is given in too large doses. We have in morphia, or brandy, as the result of these upon centres are the opposite of the veratrim.

Again, in quinia as an antiperiodic remedy in periodical fevers, we have the antagonism between disease and remedy, so that the quinia is the prince of remedies for these forms of disease. Again in inflammations and hyperemias and hemorrhages we have another example in ergot as against disease, in other words, so exerting its power upon the muscular fibre of organs and vessels to control blood supply. Who has not tried it upon uterine tissue? and secured ergotism? and who has not tried it in control of vessels hyperemia of brain as manifested in the tortuous and dilated vessels of the fundus of the eye?

Again in that dreaded disease, tetanus, who has not learned that the paralysis of nerve endings in the end plates within the sarcolemma controls the action of muscles as if separated from the centres by division, which is practically produced paresis without division of nerves, and thus by an antagonism as singular as complete by such remedies as curare, physostigma controls the disease? So, also, in strychnia poisoning we have antagonistic power in chloral chloroform, camphor, nitrite of amyl, so that curaræ, physotigma, belladonna, if sufficiently early used, may be equal to arrest of the effect of the poison whether given for remedial or suicidal purposes. Yet Bartholow says these remedies antagonize the strychnia in only a part of the sphere of its action, and do not antagonize its toxic action. Hence we may say that two classes of agents are indicated, the first in its physological actions, and those which are antagonists to its toxic action. The true antagonist to its toxic action is that influence which antagonizes its convulsive phase by control of nerve centres, and saves the patient from death consuming the powers of life by arrest of convusions and elimination of the poison. He contradicts his former statement by saying that it affects the seat of the motor functions, and does not affect the functions of the motor nerves directly, but exhausts their irritability by over stimulation which is practically an exhaustion of the irritability of the centres of the cord.

Quinia, kairine, alcohol, chloral, opium, cold water are all antipyretics in a proper use of them, and it is only a question of judgment in using them so that we shall conserve the physical and vital forces to the best advantage.

One thing to be most profoundly fixed as a principle of action in the treatment of fever is to control, as promptly and effectively as possible, the height of temperature as well as its continuance, which works death to many a patient who otherwise should have readily recovered.

"A correct physiology must form the basis of all sound medical philosophy."

The elementary question, "What is fever" remains "sub judice." While modern enquirers have entered into the most minute and extensive researches in regard to causes, phenomena, symptoms, post mortem changes in different forms of fever, they have left the question as to its essential nature very nearly what it was a century ago. And Prof. George B. Wood says, "As to the real nature of fever we are in the dark, as we are in fact in relation to all essential fevers." The fact that fever and inflammations merge into each other by almost insensible differences, one thingis certainly true, that all tissues undergo certain changes; and Dr. Drake said,"Passive Hyperemia is an unquestionable fact, and fever softens every tissue of the body. To the latter type of morbid action we may refer the soft and flabby heart, not less of the liver spleen and mucous membrane of the stomach and duodenum." The blood as well as other tissues, for the blood is both a fluid and a tissue, undergoes changes which may account for the softening of the tissues. Dr. Campbell of Georgia made a report on typhoid fever in which he claims that this fever has its special origin and seat in the ganglia of the sympathetic, and so far as physiology has advanced it shows that the blood vessels are controlled by these ganglionic centers. Dr. Southwood Smith asserted in his classic work on fevers that lesion of enervation is the first link in the chain of morbid events, in the pathology of fevers; yet not until physiological research and demonstration of the actions of nerve centers had aided us, we should not comprehend the accelerator and inhibitory of power of nerve centres over heart and blood vessels. So we come now to examine the power of nerve centers over heart and vessel and muscle or the relation of nerve to muscle, with other correlative subjects.

NOTES ON TEMPERATURE.

In fevers and inflammations, Dr. J. Haddon, editor Medical Journal, April, 1884, is in favor of a shower-bath,using cold water, without mentioning temperature, but says that warm water will do just as well.

He claims that the temperature is by no means the most important feature in fevers, claiming to have been confirmed in this opinion by the record of the case of a young lady, who from spinal injury had a continuous temperature of 122°, without any disturbance of the digestive or other organs, in fact none of the symptoms for which the pyrexial state has been blamed.

He adds that at a late meeting of the London Medical Society, Dr. Samuel West and Dr. Maclagan questioned the truth of the statement, viz., that a high temperature is of itself dangerous. "So far," Dr. Haddon continues, "as I am aware, no attempt has been made to prove such a statement, viz., that temperature is dangerous in high degrees. It is a pure assumption without a single fact to support it. And yet, owing to its frequent repetition by those who are recognized authorities, the bulk of the profession has come to believe that it is true, while our teachers and text-books do not fail to give effect to the general belief."

Dr. Bartlett in his work on fevers says: "The word fever when used as it commonly is to designate a disease has no intelligible signification. It is wholly a creature of the fancy, the offspring of a false generalization and of a spurious philosophy." While the eminent Dr. Copeland in his Dictionary of Disease says: "Fever is one disease." So we might proceed to show the interminable differences of writers upon this subject, yet the difference evidently grows out of an improper comprehension of the physical, chemical and vital forces of the organism, also a want of knowledge of many of the essential facts which are now known to us as affecting nerve centres, and the relation which these bear to the circulatory and respiratory functions as well as the nutritive and secretory functions.

Prof. Flint, in summing up his conclusions in his sixth proposition says: "Reduction of temperature by these methods as often as it rises above 103 improves the condition of the patient." And in his seventh proposition: "The results of the analysis of these cases, although not sustaining the statements of Liebermeister and others respecting the controlling influence of the cold externally, in cases of typhoid fever, yet not only show this method of antipyretic treatment to be safe, but affords encouragement to employ it with the expectation of diminishing the severity of the disease and danger to life." (Flint in Med. Record.)

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

REPORTED FOR THE REVIEW.

Stated Meeting, November 29, 1884.

DR. DEAN.—A map was prepared some years ago representing the topography of the cholera-prevalence in this city in 1866. I have received no notice that any special subject will be up for discussion this evening. I took the liberty of inviting Col. Robert

Moore, Sewer Commissioner, who prepared the map and is familiar with the whole topography of the cholera during the year referred to, to attend the meeting and illustrate the map this evening. I felt sure the Society would be very glad to receive this information. Col. Moore is present and I move that he be invited to take the floor and present his map and such information as he may be pleased to communicate.

Col. Robert Moore.—Before exhibiting the map I ought to say a word or two respecting its history and how it came into my possession. Dr. Dean has done me more than credit by saying that the map is due to me; it is not due to me, only so far as I was instrumental in its discovery; for the map itself was prepared at that time, or a few months after the epidemic of 1866, and embodies the results of a special inquiry made by order of the Board of Assessors, who instructed all the Assistant Assessors,in obtaining the necessary data for the assessment of taxes for the year, to inquire at every house and ascertain the number of deaths from cholera during the preceding season in that house; the answers to these inquiries were subsequently tabulated and finally put down on this map, two or three of which were made. A few months ago I carefully examined the great report of the Royal Commission on pollution of rivers in England; the result of six years of study on the part of the best commission that ever has had that subject in charge. It is an extremely interesting account of the prevalence of the cholera in the southern part of London in the years 1849 and 1854. The south side of London, embracing a population approximately of 500,000 people, was served by two competing water companies, whose mains were distributed indiscriminately through the city and which served the population in nearly equal proportions, and of precisely the same character, being located under precisely the same topographical conditions, and subject to the same influences in all respects excepting 1; and that one was the difference in the source, or portion of the river Thames from which they drew their water supply. One of these companies took its supply from very near the heart of London, near Chelsea, and the other several miles above, outside of London. The latter served water which was as pure as any served in any part of England; whereas the company which took its supply from Chelsea served water that is described as perhaps as foul a beverage as was ever served to any civilized people. The sources were separated by an interval of eight or nine miles. The result was that the population served with the foul water died in numbers nearly four times as great as those who drank the purer water. To make the inference almost a certainty there was a further fact, that in the epidemic of 1849 the two companies took their supply from the same portion of the river; then the mortality in the two fields supplied was the same approximately. It was taken from the lower source, the Lambeth Company having a little the greater mortality. Shortly after 1849 the Lambeth Company moved its source of supply up stream, after which the mortality was as one to three and one half as compared with the mortality of the company which retained the old source of supply. Other facts of like tenor, which had been found to exist in the city of London, and throughout England, show the very close dependence of the causation of cholera upon the drinking of polluted water. This fact reminded me of the statements which I had seen in regard to the great prevalence of cholera in the city of St. Louis. I have seen it stated, that in 1866, the mortality from cholera in this city was 8,500, which is not the truth. In 1866 the source of supply of water in St. Louis was from the river at Bates street, above the elevator; the water works were not moved above Bates street until after 1866, and in fact the new water supply was not put in until about 1871. This water supply at Bates street was below the mouths of quite a number of sewers. I wondered whether that could have any relation whatever to the prevalence of cholera here, and I reflected and inquired whether there were any facts which would tend to prove that the cholera in St. Louis in 1866 was dependent in any degree upon the pollution of the water supply. The health department informed me there was nothing in existence indicating in what districts the cholera existed in 1866, but being fortunate enough to be associated a few weeks later with Dr. Spiegelhalter in making preparations for the meeting of the American Public Health Association, of which we both were members, I mentioned to him what I wanted. He stated a map had been made showing the localities where the cholera prevailed in 1866, and he thought he could obtain it. After a good deal of inquiry and discouragment, he finally found the map in the hands of a private individual; this one in existence was the only of those made at the time. Upon inspecting it I came to the conclusion that the foul water supply from the river had nothing whatever to do with the prevalence of chol-

era here; because, if that were the case, it would be co-extensive with the supply. I think when you inspect the map, you will see that it is not at all the case, but that it is due to causes entirely independent of foul water supply. I think moreover you will see that it is dependent upon the fact that the districts in which the cholera was chiefly prevalent were, first, the districts of the greater density of population, and, next, the districts where the population was of the poorest character; in other words, where the habits of life of the inhabitants were such that they would naturally get the most filth in their food and drink. And, last of all, I believe, from all the information at my command, that those districts are precisely those which are supplied mostly by well-water. I was informed at the health department to-day that the greatest number of wells as shown by their records were in this Biddle street region. Well, you will see here on the map indicated that the greater number of deaths from cholera in 1866 occurred in ths Biddle district. I have records which show the number of deaths in each block; also a census of 1866, showing the density of population in each block and the death rate in each block. Only about one-sixth as many deaths occurred in 1867 from cholera as in 1866. This being the only original map in existence the local committee of the American Public Health Association, in order to preserve these facts, had a republication of the map made, which together with this copy of statistics contains the whole matter. The number of deaths, as recorded in the office of the Board of Health, was never footed up until I did it; and I discovered that the report showed a considerable number more deaths than was shown by the report of the assessors; but upon application to Dr. Dean, surgeon of City Hospital, I found that the deaths at this institution precisely made up the deficiency, so that the two reports exactly tallied, there being 3,527, which is exactly the same number as reported by the Board of Health; so that the accuracy of these figures is placed almost beyond question.

Dr. Dickinson.—I am convinced that the occasion of the number of deaths which occurred in the localities indicated, especially that of the Biddle street district, was chiefly due to the drinking of the water of the wells contaminated with matter from vaults in the vicinity. I make this statement as a prelude to my own experience in 1854. I was then in general practice in a city of 15,000, in Massachusetts. I was called one morning at about 2 o'clock to see a man whom I found attacked with cholera. At that very moment he was in the stage of collapse. He manifested a symptom, which is denied by some writers on the subject, who maintain that the vision is entirely unaffected; but in this case, after rising from the vessel, he was feeling about the room, and said, 'why don't you have a light here,' calling his wife by name, showing that his visual powers had declined by want of proper stimulus of blood to the brain. I remained with him and did all that was possible, but he died before 7 o'clock. On the day previous he had eaten bountifully of peaches, and drank very largely of water, from a well which was situated in the rear of the building and within a short distance of the privy. Whatever theories may be propounded as to the causation or predisposing causes of the disease, this was a case in which water from the privy had unquestionably found its way into the well, infected the water from which he had drank, and I believe caused in him the disease; he, being the only one in the family sufficiently susceptible to be infected by the septic matter, fell a victim.

Another case occurred in the practice of a brother physician four miles distant from the former case, in the country, in a house which was situated upon high ground. The patient, a farmer, apparently was in ordinary health when he was taken suddenly ill, and died in a very short time. The friends assembled at the funeral, and during the service some one went out to the well to obtain water to drink and when the bucket was pulled up it, contained a dead cat in a state of advanced decomposition. These are instances which, to my mind, are conclusive, that foul water is one very fruitful cause of cholera, the introduction of septic matter into the system paralyzing the sympathetic system, which among other functions presides over nutrition and especially the functions of the intestines.

Dr. Newland.—From my experience I cannot agree with the former speaker in the opinion that foul water creates cholera. In 1848 I was in the Prussian army during the revolution. We were stationed at the ocean border and in that part of the country at which cholera first entered Germany. The cholera broke out in the summer and assumed an epidemic form; we lost, from one company in one night, twenty-one men.

In Germany wells are not as numerou as in this country; in small towns there i often but one well. In the town in whic we were stationed there was but one, an this was in the public place in the centre o f the town, called the Markt Platz, and all th e

inhabitants got their drinking water from this well. Wells are not found in the back yards as in this country; there may be exceptions; for example, an hotel may have a well in front of the house, but not in the yard. The water from this central well is the purest that can be obtained anywhere and yet the cholera broke out, in a very severe form; men in good health were stricken down. In the Prussian army men are enlisted only from twenty to twenty-four years old, therefore they were all healthy; they were well nourished, well clad, and well quartered; but at this time they died just like flies. I was stationed in the hospital; men taken sick are placed in a basket six feet long, and by four men carried to the hospital. One night at 12 o'clock, four of the first company brought in one of their comrades sick with cholera. Having left him they returned to their quarters; at 1 o'clock the same night the tallest man in the first company, who had assisted in carrying in the former comrade, was himself brought in sick with cholera. We had in the hospital about sixty or seventy patients and only one doctor and two nurses to care for them; under those unfavorable circumstances the death rate was very considerable; a large percentage died. Every one who has attended cholera patients knows that nursing has a great deal to do with recoveries; nursing and good attendance will save at least sixty to seventy and eighty per cent., while with poor nursing fifty per cent. are lost. In private practice at that time not more than twenty per cent. of deaths occurred, while at the hospitals, military as well as civil, a large percentage were lost. I think, therefore, that nursing had a good deal to do with the results. The large majority of our men who were quartered in private houses, where the people in the house nursed and attended to them, got well. Indeed, I don't remember that a single case died in a private house, while in the hospital there were a large percentage of deaths.

Dr. Dickinson.—Far be it from me to assert that the drinking of foul water is the sole cause of cholera, but I am convinced it is a very prolific and potential cause.

Dr. Dean.—I think Col. Moore has more statistics which may prove interesting to the Society, and I would like to ask him to present them.

Col. Moore.—The volume which I now present is a work pertaining to the domestic water supply of Great Britain, it being the sixth report of the River Pollution Commission of 1866; probably the best collection of facts upon that subject that has ever been made. Among other things it presents a map of the celebrated Broad Street pump case. The facts are that a very violent outbreak of cholera occurred in the area supplied by a certain pump, known as the "Broad Street Pump," in the heart of London; these are summed up here, viz.:

1. That the outbreak, properly so called, was principally confined to an area about the Broad street pump.

2. That sixty-six out of seventy-three persons, who died during the first two days, had been accustomed to drink pump water either constantly or occasionally.

3. That the water had been used in various ways.

4. That in two houses where the wellwater was not used only five deaths occcurred, whereas fifty would have been the ratio proportioned to that of the neighborhood around.

5. That in a factory employing 200 people, where the water was drunk daily, 18 people died.

6. That seven men who were employed at a brewery on Broad street never drank that water and escaped the cholera.

7. That a number of individuals who drank the water were attacked by cholera.

8. A lady living quite a distance from the district but who had the water sent out to her, died after drinking it. Her niece also died under the same circumstances.

9. That in a particular district, containing fourteen houses, the only four of which escaped without death, embraced those in which the Broad street water was never drunk.

10. That this water was used for drinking purposes.

From all these several facts Dr. Snow is of the opinion that the later cases of cholera were due to some other mode of infection. The report shows precisely the manner in which this well was contaminated by the evacuations from cholera patients who died in an adjoining house, giving all the particulars. I think this is one of the most instructive cases that has ever been recorded, because it has been so thoroughly investigated. The map is here and can be seen.

Dr. A. Green.—Mr. President: A certain element has been overlooked. In 1857 I visited patients in these very locations where so many people died, and where almost every house had a well. In ascribing the cholera to drinking well-water we must not forget that these same people had been drinking that very same water for years and years before and years and years after, but especially before, and still the water didn't produce in

them cholera; we have overlooked this altogether. Another factor should be remembered; and that is that there are many houses in each of which five, six or eight families are located, all the members of which used the same privy; I think if we may ascribe the propagation of the disease to any cause, it is because the evacuations of the cholera patients contaminated the water to such degree that the cholera germs in passing through this medium were enabled to arrive at a stage of virulence so that they could infect the person drinking the water. Ten or twelve years ago Niemeyer urged the people to make excavations in the earth and bury the evacuations from cholera patients, and not permit them to be thrown into the common privies. In a certain house on Carondelet avenue in 1873 or 1874 I saw cholera patients; and on making an inspection of the premises, I found them filthy to the highest degree; and I said to the landlord, "If you don't disinfect this yard I will report you"—the disinfection was done. These cases possibly might be due to the filth. Not every one is susceptible to the poison of cholera; and the reason that there were no other cases of cholera in that neighborhood, was not because the yard was disinfected and cleaned up, but because the other people were not susceptible to the infecting influence.

Dr. Hurt.—I move that the thanks of the Society be returned to Col. Moore for the presentation of this interesting map, and for his remarks in connection with it.

Unanimously adopted.

Dr. Meisenbach.—I would like to ask Col. Moore to state the relative healthfulness of the water supply of St. Louis as compared with that of other cities of America and Europe?

Col. Moore.—I cannot state exactly; it stands very high, certainly amongst the cities of this country; it is vastly superior to the supply of Chicago, Philadelphia and that of Boston. New York has a water supply that is comparatively pure, and Baltimore also. St. Louis ranks with these, and is among the purest in this country. One very instructive fact in connection with water supply respects the city of Glasgow. This city had been visited by cholera in every epidemic that visited England in 1832, 1849 and 1854; and during each of these epidemics the mortality was three times as great as in the city of London. During all that period the water supply of the city was taken from the River Clyde, which is a very filthy river. But in the year 1859 the city expended a large amount of money to procure a water supply from Loch Katrine, which is a standard of pure water. Prof. Tyndale, I think, mentions it as the purest water he ever investigated, except probably distilled water. In 1866 the cholera again visited Glasgow; but during that epidemic the entire mortality was less than a hundred, comparatively nothing. In the adjoining towns of Paisley and Hamilton the same immunity prevailed, showing that the greatest precaution that can be given to a city is to give it pure drinking water.

Dr. Jordan.—I agree with Dr. Green in regard to the condition of the privies in 1866; on several occasions I examined them and found them overflowing with water and filth. Our city is now in a totally different sanitary condition from what it was at that time. Then in the cholera districts there was no water supply except from these wells, in a greater portion of the places. Now I think the owners are compelled to furnish river water to tenement houses. The cholera commenced in the centre of the city and prevailed with great virulence, extending north and south and east to the river. A great many cases occurred in "Butchertown," where there were many ponds of stagnant water. But as in cholera so in small-pox. I vaccinated throughout this district two or three times for the city, and invariably found the worst cases of small-pox just in the section marked off on the map for cholera. In 1867 but very few cases occurred in the central portion of the city, but these were exceedingly fatal.

Dr. Dean.—I don't think anybody has implied, as Dr. Green seems to understand, that the drinking of the water from these wells produced the cholera in cholera times more than in other times, until the water became changed, until the water became impure by the infiltration of septic substances, cholera dejections, into the water caused it to be dangerous and productive of disease. I don't think the point has been overlooked at all.

* * *

Dr. Pollak presented a patient and said: The patient is a gas-fitter by trade. On October 6, while standing on a step-ladder in the act of lighting gas burners on one of the arches across Fifth street, the step-ladder slipped from under him and he fell from a height of eight feet striking his head on the curb-stone. He was rendered unconscious, and in that condition was carried to the City Hospital. On coming to himself next day he was told the scalp was badly lacerated, that he bled profusely from wounds in the scalp, also from the ear, nose and eye; and that he most probably had a fracture of the base of the skull. There

was great deafness, but more so in the left than in the right ear. He remained in the City Hospital sometime, and last Tuesday, he presented himself at my clinic. I found a large crucial cicatrix on the upper part of the right parietal bone; no trace of injury to the eye, nose and ear. The meatus was free, open, the membrana tympani entire and translucent; movable on inflation; the clear point very distinct, the handle of malleus making its proper excursion. No trace of a scar either in the meatus or in the tympanal membrane, which would be inevitable if the bleeding came from the ear. Blood from the ear can only escape from a rupture of the membrana tympani, or fracture in the meatus. Traces of such an injury are not easily effaceable; but nothing of that kind is seen here. There is total deafness in the left ear, watch not heard on contact; tuning fork only in very close proximity; bone conduction absent on the temple, mastoid process and vertex; constant tinnitus, a hissing sound both day and night. There was a puffing or pulsating sound in that ear for several weeks which subsided on pressing the external carotid, and the patient resorted to this procedure in order to relieve himself temporarily of this distressing symptom. This however has now entirely ceased; but the hissing noise persists and is very annoying. Hearing in the right ear is considerably impaired. H. D., watch 2 inches, tuning fork more; there is also good bone conduction. Riding in the street cars causes much discomfort; a firm step or even moderate straining induces severe headache. Rotary motion of the head is limited and painful; lateral motion likewise, the sterno cleido-mastoideus muscle incapable of strong effort. Otherwise his health is good and mental faculties unimpaired. This is a case of demonstration of the manifestation of the disease on the side opposite to the place of injury or disease, owing to decussation of many sensory nerves. I desired him to come here that I might obtain the views of the members of the Society, and especially of the neurologists, in regard to the pathology of the case, and to hear their suggestions as to the best mode of treatment.

Dr. E. Borck, to the patient.—Can you lie down and get up without supporting your head?

Patient.—No, sir.

Dr. Bremer.—I have seen this case before, but it is only to-night that I have a clear insight into it. I did not question the patient long enough nor examine him closely when I saw him; it seemed to me to be a case of localized cortical lesion by countre-coup of the psycho-auditory centre in the first temporal convolution. Having heard the statement of Dr. Pollak and especially the remarks which he makes about the gyratory movement, I have come to the conclusion that it certainly must be an injury of the labyrinth. We know that the labyrinth and the fluid contained therein dominates over the equipoise of the individual; as soon as there is a slight disturbance of the amount of water in the labyrinth by pressure or otherwise the equilibrium is disturbed in a greater or less degree. This may be due to either an actual fracture of the temporal bone, which is not very probable in this case, or it may be due to hemorrhage into the labyrinth, which I think is more probable. I do not believe that the auditory nerve has anything to do with it, because isolated cases of unilateral deafness, due to injury of the auditory nerve, are very rare. There are generally other disturbances of the neigboring nerves, the facial, for example.

Dr. E. Borck.—This is certainly a very interesting case. The symptoms presented can be produced in different ways. I asked this gentleman whether he could lie down or rise without supporting his head; and he said "no," and he has pain in moving his head forward and backwards. Then the history of this case is that he fell eight or nine feet. Now I think there is certainly an injury between the atlas and odontoid process. Of course there might be a fracture of the base of the skull, but there is certainly an injury at the site indicated; there may be a fracture of the atlas and axis or dislocation of these vertebræ. The reason I make this diagnosis is, the man cannot rotate his head without pain, and the motion occurs between the atlas and odontoid process, so that there must be an injury at this point. We might have these symptoms in sarcoma or cancer of this process, or in Pott's disease (this is only a special case of rachitic disease, however). In this case the sterno-cleido-mastoid muscle is contracted, so that from the history of the case and from the fact that he cannot lie down or rise up without supporting his head, I make the diagnosis that there must be an injury between the atlas and axis. Some interesting clinical cases similar to this are reported in the January number of the St. Louis Medical and Surgical Journal.

Dr. Dean.—So far as I can recollect with reference to the patient he was brought into the hospital unconscious, with a cut on the right side of the head, and fresh blood in the ears; blood was flowing also from the nose and mouth; there was also ecchymosis

in the right lower eyelid; I examined closely to see whether there was any serous or bloody flow from the ear, and concluded that there was not. He was afterwards removed from the hospital by his friends. He had become conscious and was doing well. I examined him with reference to any dislocation or injury of the vertebræ in the pharynx also, and I believe there was not. I am always interested in these cases, because one of the first cases of recovery after fracture of the base of the skull I ever treated was in this city, when recoveries were thought to be rare. It is plain now there is no dislocation.

Dr. E. Borck.—I would like to ask Dr. Dean if by mere feeling he could determine whether there was an injury or dislocation between the atlas and axis.

Dr. Dean.—If there is a dislocation of the cervical vertebræ I can make it out. I had a patient a few months at the hospital in whom I found a rupture of the long anterior ligament, in this portion of the neck, and I think if you can diagnose that you can find the other.

Dr. Bremer.—I would like to ask Dr. Borck if there would be any chance for a man to survive, if he had dislocated the atlas; that is generally done by the hangman, and is equivalent to breaking his neck?

Dr. Hughes.—I think it would be extremely difficult to determine with any degree of certainty the origin of this lesion; that the case is one of countre-coup I think there is, in a certain sense, no doubt; there seems to be a blending of countre-coup and direct violence. The man fell from a step-ladder on his head and had the whole weight of his body superadded to the direct concussion by coming in contact with the curb-stone; and he had in addition cerebral concussion which must have had some spinal effect in causing some disturbance of the spinal cord, because it is very improbable that a man will fall eight feet on his head without having some disturbance of the neck adjacent to the brain; the body will twist over and by compression produce a marked disturbance of the cord. Now if that be so a disturbance of the vaso-motor area, the cervical area and spinal cord would be sufficient to produce marked intra-cranial vascular disturbance; it would have a marked effect upon the labyrinth probably, and would implicate the sensory auditory area; hence the deafness which the man experiences may not be the result of any trouble in the ear itself. There seems to be a blending of direct violence and countre-coup; a concussion of the brain against the basilar portion and against the parietal bone, that is striking that side, in the manner stated, combined with disturbance of the spinal cord and of the vaso-motor area of the brain, the area of distribution of the cervical sympathetic nerve. I think all these things would combine to produce this difficulty.

Dr. E. Borck.—Do I understand Dr. Bremer to say that fracture cannot take place between the atlas and axis, unless the hangman produces it?

Dr. Bremer.—I said that is what takes place when a man is hung. By such a fracture and dislocation the man's death is certain. I designed to say that such a traumatic lesion cannot be produced without the gravest symptoms. If a gradual dislocation takes place on account of some malignant tumor, the medulla oblongata will, to a certain extent, become accustomed to the persistent pressure; but a sudden dislocation will not pass off without producing more serious symptoms than we see here.

Dr. E. B orck.—How about partial fracture of the bones? There may be a partial fracture, may there not.

Dr. Bremer.—In case of fracture the disturbance would be just so great that the man would not be able to walk; a traumatic injury of that kind would disable him in a marked degree. I make a distinction between traumatic lesions and those arising from malignant tumors; and, besides, if there are any lesions in this case, to which the deafness can be referable, such as a dislocation of the spine pressing upon the medulla oblongata, the deafness would certainly be upon both sides and not upon one side, as is in this case.

Dr. Borck.—I think Dr. Bremer is mistaken respecting the traumatic injury, because there are cases on record in which, autopsies have proved that there was partial fracture of the axis or odontoid process, where the patient had received some injury and stlll kept his head in a certain position. I remember a case, in my own practice, in which a milkman received an injury to the axis and still lived four or five weeks, and continued about his business; but in going over a gutter his head suffered a sudden jerk, he suddenly succumbed; the post-mortem examination verified my diagnosis.

Dr. Hurt.—It seems to me that, from the symptoms observed and from those which have been described, there is probably a complication of troubles here, and that both cervical vertebræ have been injured.

* * *

Dr. Hughes read a paper on the Hemorrhagic Diathesis.

Dr. Bremer.—Dr. Hughes has made several assertions which I cannot subscribe to. I cannot go over the whole ground without reading the paper or an abstract of it; but I take up such points as happen to come to my my mind. He maintains in the first place that this is a vaso-motor disease. Can he prove it? Certainly not anatomically and not clinically, for the vaso-motor centre has nothing to do with the corpora quadrigemina. The doctor calls it a paresis of the vaso-motor nerves. There is no higher type of paralysis of the vaso-motor nerves produced than section of these nerves, to cut, for instance, the ascending cervical nerve. This will give rise to the well known phenomena of hyperemia of the same side of the head. Was ever bleeding produced on account of the section of that nerve? never, We have injection of the vessels, but no hemorrhage; the vaso-motor theory on this simple ground, it seems to me fails entirely to explain the phenomena. The doctor furthermore asserts that it is a disease of the arteries. I entertain quite a different opinion; and it is the opinion of the authorities that the arteries have nothing whatever to do with the disease; it is the capillaries and not the arteries.

Dr. Hughes.—I think the gentleman certainly didn't understand my paper at all.

Dr. Bremer.—The doctor referred to arteries; and the arteries have nothing to do with it.

Dr. Hughes.—I said nothing about the disease of the arteries at all; nowhere in the paper have I referred to it.

Dr. Bremer.—He referred to the deficient innervation of the arteries. The doctor also asserts that no pathological changes are found in the capillaries. I believe that is a mistake; in fact I know it is a mistake; changes have been found in the capillaries; the endothelium has been found to be greatly enlarged, and the nuclei swelled up. I have seen a pathological specimen of that kind, that occurred in the practice of a German physician. Then the doctor makes another assertion, that the capillaries are not supplied with nerves. I can demonstrate with the microscope that every capillary is supplied with nerves. However, that speaks rather in favor of the doctor's theory. I believe, Mr. President, that the doctor has not drawn the limiting line close enough between hemophilia proper and other cachectic states that may give rise to a hemorrhagic tendency. The doctor speaks of alcholics; bleeders never reach the age when they have a liking for alcohol, say between 35 and 40 years; death as a rule comes before that time. Hemophilia was first described in this country in the latter part of the last century; but it is an affliction well known in Germany, and it has long been known there that the bleeder does not survive till he becomes old. It is a remarkable fact that the disease is generally transmitted by females, although they themselves are not bleeders. That is, if a man who comes from a bleeding family marries a healthy woman, he may have children in the best of health, boys and girls; but there may be a girl who marries and she may transmit the disease to her boy; as a rule the boys are bleeders and not the girls. There is no remedy in the world that will cure that condition; at least such has been the experience of the best and most experienced physicians of both hemispheres.

Dr. Pollak.—How do you draw the line between hemophilia and hemorrhagic tendency?

Dr. Bremer.—Hemophilia is always inherited; the hemorrhagic tendency may be acquired without any hereditary tendency whatever. Malaria for instance may produce a cachectic condition of the blood, predisposing to hemorrhage, but hemophilia is always inherited. The peculiarity in this disease is that the bleeding starts from the capillaries; there is never any arterial bleeding. It is an oozing, and large wounds, strange to say, do not produce such danger as small wounds, such as scratches and slight injuries; so that it has been proposed that whenever such slight wounds cause bleeding, a large incision should be made, In that way the bleeding has been stopped.

Dr. Atwood.—I would like to ask Dr. Bremer whether the capillary circulation is independent of the systemic circulation?

Dr. Bremer.—Yes, sir, it is. And that is proved by this fact: the pallor of fright and the crimson color of shame are produced by vaso-motor influences; one by vaso-constriction, the other by vaso-paralysis of the capillaries and not of the arterial system as a whole.

Dr. Dean.—I would like to emphasize one statement made by the doctor. The tendency to bleed is transmitted directly by the mother. The daughters are usually not bleeders,but the sons are. The daughters are very prolific; the statistics show that these women have eight or nine children where ordinary women of the same rank have only four or five. Though the women are not bleeders, their sons are. If a healthy man marry one of these women the sons are bleeders,

the daughters not; but when one of the men of the same families marries a healthy woman their children are not bleeders but his grandchildren inherit the diathesis, the inheritance being indirect. This seems proven by statistics. I mention it especially that others may confirm it or not by their cases.

Dr. Atwood.—I can verify that statement from my own observation.

Dr. Love.—I would like to ask Dr. Bremer a question: If a case of the so-called bleeders or persons suffering from the hemorrhagic diathesis should be treated and cured, so to speak, either by medication or by the means suggested by Dr. Hughes, would he pronounce it a case of hemophilia?

Dr. Bremer.—No, sir; I would not.

Dr. Love—Then you think that cases of hemophilia are very rare?

Dr. Bremer.—They are exceedingly rare. Some physicians have practiced for 25 or 30 years, and have never seen a case, especially in this country.

Dr. Hughes.—I thought it was an understood fact that the phenomena of hemophilia were displayed in the capillary system; and I thought that when I made the statement, that if you followed the filaments of the sympathetic system as far as you could trace them (and you can trace them into the capillary system as far as you can find striated and non-striated muscular fibre), I thought I was reaching as far as the limits of physiology permitted us to go. It is not a question of controversy as to whether or not the capillaries possess ramifying filaments of the sympathetic nervous system; but that they do is an absolute fact, which has been demonstrated beyond dispute; that is, wherever there is a capillary, certainly, so far there is muscular fibre. So long as there is striated muscular fibre you will find nervous distribution. I stand upon that, and I do not expect to read a paper taking a new view of a subject and expect it to meet with universal approbation. I have made a statement in regard to alcoholics, that alcohol was a paralyzant of the vaso-motor system, and that you sometimes see the proclivity to bleed developed *de novo* in chronic alcoholics, men given to drinking. I have seen such men, and upon inquiry I have learned that they were not bleeders until the use of alcohol had been persisted in for sometime; and I believe the experience of many observers in this Society has been to a like effect, i. e., that there have been instances in which bleeders have been developed in this way, in whom an increased proclivity to bleed has been developed by indulgence in alcohol. I referred to lost tonicity of the vascular walls, due to the withdrawal of the normal physiological influence, that is the condition which I conceive exists in hemophilia. Now the doctor has made a great many statements showing that he has misunderstood what I stated in my paper. I have nowhere asserted that these alcoholics were bleeders from birth; not at all. And I think that the paper when carefully read will be interpreted by the doctor in a different light. Now in regard to the statement of the existence of the disease of the capillaries. I stated that no constant lesion had been found in the coats of the vessels of the capillaries; and I stand upon that statement. I defy the production of any authority which says that there is any form of constant change. In the beginning of this paper I took particular pains to state all the various forms of disease with which I am familiar or which Quain gives us in his "Dictionary." I have put them together and tried as far as practicable to reach this question by exclusion. In regard to the origin of the vaso-motor centre, no one pretends to be absolutely certain as to the precise location of it. The quotation made in my paper was from Scharf (?) himself, and the quotation is marked in the paper. Physiologists are not settled upon that subject; but it is not a question of controversy as to physiological questions. As to the tenability of hypotheses, when we cannot have unerring demonstrative facts we must resort to hypotheses, we have to resort to them in regard to many conditions that are not established by positive demonstration.

Dr. Atwood.—I would like to ask one question: Do capillary vessels have a muscular coat or wall?

Dr. Hughes.—The smaller ones have not.

Dr. Love.—The report of the case by myself probably was the origin or occasion of this paper. When I reported it I read up the literature on the subject so far as was within my reach, the result of which was, that there was very serious doubt whether there were really any truly so-called cases of hemophilia. Now the question comes up, if that is the established position in this country, whatever may be the views of the pathologists of Germany, who we know are superior in this department of science, but are very poor therapeutists, whether it may not be, that these established cases of bleeders, well defined cases of hemophilia, were possibly not sufficiently medicated; possibly they did not receive the treatment that has been very ably suggested here to-night. Does Dr. Bremer know whether they received such

treatment? are there any cases in the literature that throw any light on that subject-whether such therapeutic means as electricity, quinine and chloral have been used?

Dr. Bremer.—I do not know that they have been tried.

Dr. Love.—Then if they have not I would suggest that the point made by Dr. Hughes is a good one and that they have not fully established that bleeders are never cured until they act on these suggestions.

Dr. Bremer.—Do you mean cured of an attack or cured of the disposition?

Dr. Love.—Cured of the disposition to bleed. Certainly a number of cases have been reported of hemophilia that were cured of the disposition to bleed. Dr. Bremer says that this is evidence that they were not true cases of hemophilia. I would suggest that until these therapeutic measures have been tried and proved to be of no avail in curing the disposition that it cannot be said they are incurable.

[TO BE CONTINUED.]

THE SOUTHERN ILLINOIS MEDICAL ASSOCIATION.

The Southern Illinois Medical Association met at Saddler's Hall at Centralia, Ills., November 20, 1884 at 8:30 P. M. The meeting was called to order by Dr. Hallam, the President, who read an address of welcome.

The secretary, Dr. Huntsinger, not being present, a motion was made and carried that Dr. Rosson be made secretary pro tem.

Letters were read from absent members.

Dr. Wetmore, of the committee on medical education, made a few remarks and recommended the Society to memorialize the Legislature to make a law to take the examination of students out of the hands of the medical colleges.

Dr. Henly exhibited a young lady who seven years previously had sustained a fracture of the skull. The fractured portion was removed and the opening left was two and a half by three inches. She had suffered no inconvenience.

A motion was made and carried, that the committee on medical ethics be continued till next meeting.

Dr. Rosson read a paper on the symptom "Jaundice" and it was discussed by Drs. Davis and Wetmore.

Then followed a discussion of the case of fractured skull.

Thereupon adjournment.

The Society was called to order by the President, November 21 at 9:30 A. M.

The committee on Anatomy, Physiology and Pathology was called, and Dr. Wetmore delivered a lecture on the anatomy and physiology of the kidneys, in which he advanced some original ideas.

Dr. Davis exhibited his instrument for the treatment of fracture of the femur and made some remarks, and a discussion by Drs. Davis Bundy, DeFoe, Parsons and others followed.

Dr. Henly made some remarks on Ovariotomy and reported four cases, one of which was fatal.

Dr. Bundy made some remarks on the use of chloroform in parturition, and he was followed by remarks by Dr. DeFoe on the same subject.

Dr. Bundy then delivered a lengthy lecture on Pneumonia.

Adjourned to meet at Waterloo in May, 1885.

J. L. Hallam, Pres.

J. B. Rosson, Sec'y pro. tem.

NINTH INTERNATIONAL MEDICAL CONGRESS.

Preliminary Notice.

The Committee met in Washington, D. C., on November 29, 1884, for the determination of the general plan of the Congress, the election of Officers of the Committee, who will be nominated to fill the same offices in the Congres and the consideration of questions of finance.

The following rules were adopted:

1. The Congress will be composed of members of the regular medical profession who shall have inscribed their names on the Register of the Congress and shall have taken out their tickets of admission. As regards foreign members the above conditions are the only ones which it seems at present expedient to impose.

The American members of the Congress shall be appointed by the American Medical Association, by regularly organized State and local medical societies, and also by such general organizations relating to special departments and purposes, as the American Academy of Medicine, the American Surgical Association, the American Gynecological, Opthalmological, Otological, Laryngological, Neurological, and Dermatological Societies, and the American Public Health Association; each of the foregoing Societies being entitled to appoint one delegate for every ten of their membership.

The members of all special and subordinate Committees appointed by the General Committee, shall also be entitled to membership in the Congress, together with such other per-

sons as may be specially designated by the Executive Committee.

All Societies entitled to representation are requested to elect their delegates at their last regular meeting preceding the meeting of the Congress, and to furnish the Secretary General with a certified list of the delegates so appointed.

2. The work of the Congress is divided into eighteen Sections, as follows, viz:

1. Medical Education, Legislation and Registration, including methods of teaching, and buildings, apparatus, etc., connected therewith; 2, Anatomy; 3, Physiology; 4, Pathology 5, Medicine; 6, Surgery; 7, Obstetrics; 8, Gynecology; 9, Ophthalmology; 10, Otology; 11, Dermatology and Syphilis; 12, Nervous Diseases and Psychiatry; 13, Laryngology; 14, Public and International Hygiene; 14, Collective Investigation Nomenclature and Vital Statistics 16, Military and Naval Surgery and Medicine; 17, Experimental Therapeutics and Pharmacology; 18, Diseases of Children.

3. The General Meetings will be reserved for the transaction of the general business of the Congress and for addresses or communications of scientific interest more general than those given in the Sections.

4. Questions which have been agreed upon for discussion in the Sections shall be introduced by members previously nominated by the Officers of the Section. The members who open discussions shall present a statement of the conclusions which they have formed as a basis for debate.

5. Notices of papers to be read in any one of the Sections, together with abstracts of the same, must be sent to the Secretary of that Section before April 30, 1887. These abstracts will be regarded as strictly confidential communications, and will not be published until the meeting of the Congress. Papers relating to questions not included in the list of subjects suggested by the Officers of the various Sections will be received. Any member after April 30 wishing to bring forward a subject not upon the programme must give notice of his intention to the Secretary General at least twenty-one days before the opening of the Congress. The Officers of each Section shall decide as to the acceptance of any communication offered to their Section, and shall fix the time of its presentation. No communication will be received which has been already published, or read before a Society.

6. All addresses and papers, read either at General Meetings or in the Sections, are to be immediately handed to the Secretaries. The Executive Committee, after the conclusion of of the Congress, shall proceed with the publication of the Transactions, and shall have full power to decide which papers shall be published, and whether in whole or in part.

7. The official languages are English, French, and German.

No speaker shall be allowed more than ten minutes, with the exception of readers of papers and those who introduce debates, who may occupy twenty minutes.

8. The Rules, Programmes, and Abstracts of Papers will be published in English, French, and German.

Each paper or address will appear in the Transactions in the language in which it was delivered by the author. The debates will be printed in English.

9. The Officers of the General Committee on Organization are a President, three (3) Vice-presidents, a Secretary-General, and a Treasurer, and those elected to these positions will be nominated by the General Committee to hold the same offices in the Congress. All vacancies in these offices shall be filled by election.

10. There shall be an Executive Committee, to be composed of the President, Secretary-General, and Treasurer of the General Committee, and of four other members, to be elected by the General Committee. The duties of the Executive Committee shall be to carry out the directions of the General Committee; to authorize such expenditures as may be necessary, and to act for the General Committee during the intervals of its sessions, reporting such action at the next meeting of the General Committee.

11. There shall be a Standing Committee on Finance, composed of five members, to be appointed by the President, subject to the approval of the Executive Committee.

12. Those who are elected as Chairmen of the several Sections shall be thereby constituted members of the General Committee.

The officers elected are as follows:

President.—Dr. Austin Flint, Sr., of N. Y.

Vice-Presidents.—Dr. Alfred Stillé, of Philadelphia; Dr. Henry I. Bowditch, of Boston; Dr. R. P. Howard, of Montreal, Canada.

Secretary-General.—Dr. J. S. Billings, U. S. A.

Treasurer.—Dr. J. M. Browne, U. S. Navy.

Members of the Executive Committee (in addition to the President, Secretary-General, and Treasurer)—Dr. I. Minis Hays, of Philadelphia; Dr. A. Jacobi, New York; Dr. Christopher Johnston, of Baltimore; Dr. S. C. Busey, of Washington

The Executive Committee will proceed at once to complete the work of organization.

J. S. Billings,
Secretary-General.

Washington, D. C., Dec. 1, 1884.

THE WEEKLY MEDICAL REVIEW.

VOL. X. NO. 25. CHICAGO AND ST. LOUIS, DECEMBER 20, 1884. TERMS: $3 A YEAR.

SOME POSSIBLE INDICATIONS ASSOCIATED WITH THE ABSENCE OF CERTAIN CONSTITUENTS OF THE GASTRIC JUICE.—Some of the foremost clinicians in general medicine in Europe have lately been paying a great deal of attention to the establishing of more definite means of diagnosis of certain lesions of the stomach, the practical results of which seem to be that an efficient washing out of the stomach by means of plain or carbonated water constitutes a simple and easily performed operation which the general practitioner should a good deal more frequently resort to than has hitherto been the custom. The results of the washing can then be examined for further information according to the facilities at the disposal of the physician. The investigation of the constituents of the fluids in the stomach is however involved in no small difficulty, inasmuch as physiological chemists are not quite in harmony relative to the normal constituents of these fluids. Some excellent work by Richet, of Paris, has been done claiming that the normal constituent giving the acid reaction is not free hydrochloric acid as is generally claimed, but a hydrochloride of leucine. Whether this substance is really free hydrochloride acid or a hydrochloride of leucine is a matter of little importance practically, if it is recognizable by the same test and if we are to look for its presence regularly in the healthy stomach, and gather any definite ideas as to prognosis from its absence.

The means of demonstration however is a matter of importance and as it is never present except in great dilution the test employed has to be delicate. The means of demonstrating the presence of this desirable substance in the fluids of the stomach employed by Prof. W. S. Haines for this purpose is the one proposed by Danilewsky; and is in substance as follows: A few drops of saturated solution of tropæoline in 94 per cent. methyl alcohol are dried at 40 C., and kept at that temperature. Then a drop of the fluid to be tested is placed on the tropæoline stain and if the substance in question is present a distinct violet spot is left when the fluid has evaporated. It is claimed by competent observers that the absence of this reaction when the investigation is conducted with due care renders the existence of cancer of the stomach very probable, whilst its continual presence seems to preclude such a condition. Further corroboration however is in order.

Meanwhile we append the summation given by the Medical Record of Drs. A. Glazinski and W. Jaworski, of Cracow, relative to the examination of the contents of the stomach. These authors have made examinations of the action of the gastric juice in two hundred cases of health and disease. Their method was as follows: The person experimented upon, having fasted till the stomach was empty, is given the white of a hard-boiled egg and 100 c.cm. of distilled water. He then remains quiet for an hour and a quarter.

At the end of this time, by means of a soft syphon tube, 100 c.cm. of water are introduced into the stomach, and the whole contents syphoned out and preserved for examination. More water is then introduced and removed in order to be sure that nothing remains in the stomach cavity. If the digestion was healthy the following conditions were found:

1. No pieces of albumen were returned through the syphon.

2. The stomach juice is clear or opalescent. It is neutral or feebly acid in reaction, and contains, as shown by methyl-violet, no hydrochloric acid.

3. The filtrate gives none of the reactions for syntonin or peptone. On the addition of a little hydrochloric acid it digests, in less than seven hours, a very small piece of albumen.

4. Under the microscope the fluid withdrawn shows no ferment-organisms or free nuclei.

If, despite the fact that the foregoing conditions are found, some dyspeptic trouble is complained of, a second examination is to be made, but in thiscase, only half an hour after the ingestion of the albumen. In healthy stomachs at this time the following ought, according to our authors, to be found.

1. About half of the albumen comes away with the fluid, and the pieces will be found swollen and their borders frayed.

2. The filtrate is strongly acid and shows the presence of HCl. It also shows the presenee of syntonin and gives a moderately strong reaction for peptone.

3. The filtrate digests albumen without the addition of any acid.

4. Under the microscope no ferment-organisms or free nuclei are visible.

On the other hand, in pathological conditions it is found:

1. That the albumen ingested remains in the stomach much longer than an hour and a quarter, and this is what most frequently occurs. Sometimes the albumen is swollen and partly digested; at other times, when the gastric juice is absent, there is hardly any change.

2. The stomach contents are cloudy, of a yellowish-green or bluish color, and mixed with greenish-yellow flocculi.

At the end of an hour the stomach contents are sometimes much more strongly acid, sometimes less acid than normal. After an hour and a quarter, the filtrate, if any albumen is present, is usually more acid than normal. After half an hour the filtrate may or may not contain peptone. After an hour and a quarter the fluid contains peptone. Microscopic examination shows the presence of mucous corpuscles colored with bile-pigment and ferment organisms, or free nuclei.

The authors advise that after examinations have been made in the manner laid down by them, tests of the vital capacity and contractility of the stomach according to the method of Jaworski should be made. If no physical signs of disturbed digestion exist, then the gastric symptoms must be referred to a nervous basis.

Oil of Gaultheria in Rheumatism.—The oil of gaultheria is highly recommended by Dr. H. H. Seelye, of Massachusetts, in the New York Medical Journal, November 8, 1884.

About two years ago its use was commenced in Bellevue Hospital, New York, when Dr. Seelye was house physician there, and its results were so satisfactory, that from that time onward it has been the main reliance in all rheumatoid affections.

The medicine, it was found, could be administered in various ways, the most agreeable being in capsules, either alone or mixed with salicylate of sodium, or in soda-water as a flavoring. But the method most employed was to give it in an emulsion of ten minims of the oil to half a drachm each of glycerine and water. If the patients had been sick for some time, and the inflammation of the joints was extensive, they usually ordered two drachms of this mixture every two hours during the day, and every three hours throughout the night. Under this treatment almost invariably within twelve hours the patient wonld express great relief, and by the end of twenty-four hours the pain and swelling would have left all the joints except, perhaps, a little in some one articulation; and there would only remain a slight stiffness of the previously-inflamed parts, due probably, to the distension of the adjacent tissues by reason of the swelling, which had now disappeared. Before or about this time, however, the patient would generally complain of some ringing in the ears and

deafness, similar to that produced by large doses of quinine, but usually not so markedly annoying in character, and he would be apt to have some headache or a sensation of fullness in the head. These symptoms occurring synchronously with cessation of pain, tenderness, and swelling from the joints, and with a sudden fall of temperature to the normal were generally considered an indication for diminishing the dose of the medicine, and it was, therefore, usually reduced to one drachm every three or four hours, according to the relative amount of the cerebral and joint disturbance. If too much of the medicine was still given, its evil effects became more marked. The patient would now experience a loathing of the drug; nausea and vomiting would set in; the deafness, tinnitus aurium, and headache would increase; the muscles of the hands, limbs, and face would become tremulous; the countenance would be flushed, and the whole body be bathed in a profuse perspiration; and at length the patient would become delirious, till in some instances the symptoms so closely resembled those of delirium tremens, that it was often difficult or quite impossible to tell whether they were really the manifestations of the physiological limits of the remedy, or those of an alcoholic patient deprived of his accustomed stimulants. These extreme symptoms, more or less modified, were observed in, perhaps, eight or ten cases of acute articular rheumatism, but they almost invariably occurred in patients who had been hard drinkers, and in whom the attack of rheumatism was most probably due to some unusual exposure to cold or wet while in a state of intoxication. In the large majority of cases only a little ringing in the ears was complained of, and this would soon cease upon the diminution or complete withdrawal of the drug. There were also very many cases in which no evil results were ever manifested, but the patient speedily recovered without experiencing any annoyance.

Intestinal Obstruction from Charcoal.—A patient who was lately under my care suffering from chronic obstruction in the intestinal canal, probably in the descending colon, took, on his own account, freely of charcoal powder, often a drachm a day, to relieve flatulency. The result was an all but fatal obstruction. Fortunately, under the use of enemata, coupled with persistent but gentle abdominal friction, relief was obtained although stercoraceous vomiting once occurred. The excretions causing the obstruction were coated with carbon, and portions of carbon also passed in the free state. This is the second case in my practice in which charcoal powder has caused intestinal obstruction.—Asclepiad, October, 1884.

Our Sleeping Rooms.—The following from the American Agriculturist can be advantageously preached by the family physician.

"We hear a great talk about malaria nowadays, but there is more malaria to be found in most modern bed-chambers than anywhere else. Persons who are moderately intelligent on other topics appear to have small thought, or that very perverted, on the subject of hygiene in their sleeping-rooms, and especially those occupied by children. The ventilation of a bed-chamber cannot be too carefully attended to; and, as says Horace Mann, "seeing the atmosphere is forty miles deep all around the globe, it is a useless piece of economy to breathe it more than once." Yet nine mothers out of ten will carefully close all the windows, "for fear of colds and night air," and leave two or three children to sleep in a stifling atmosphere, and see no connection between the colds and throat troubles they have, and the vitiated air she compels them to breathe night after night. Let the morning air and sunshine into the bedroom as soon as possible after the occupants have risen; and if there is no sunshine, and it is not raining, let in the air. Do not make up beds too soon after they are vacated. You may get your house tidied sooner, but it is neither cleanly nor healthy to snugly pack up bed clothing until the exhalations of the

sleepers' bodies have been removed by exposure to the air.

Look carefully after the wash-stand and the various utensils belonging thereto. The soap dishes and tooth-brush mugs cannot be kept too scrupulously clean. All slops and foul water should be emptied very promptly. Wash out and sun all pitchers, glasses and whatever vessels used in the sleeping-room. Never allow water or stale bouquets of flowers to stand for days in the spare chamber after the departure of a guest. Towels that have been used should be promptly removed, and no soiled clothing allowed to hang or accumulate about the room. Closets opening into a sleeping apartment are often the receptacles of soiled clothes, shoes, etc., and become fruitful sources of bad air, particularly where there are small children. After such places the housewife should look with a keen eye for objectionable articles, and remove them with an unsparing hand. I have enconntered such closets, in which one might find all the odors traditionally belonging to the city of Cologne, any one of which was enough to suggest ideas of disease germs.

Even so innocent a piece of furniture as the bureau may by carelessness become the recipient of articles which will taint the air of the bed-chamber. Damp and soiled combs and brushes are not only unsightly and disgusting, but lying soiled and unaired from day to day will certainly contribute to evil airs and odors, as will also greasy and highly-scented hair, ribbons, etc. Never lay freshly laundried clothes upon the bed, nor air the same in your bedroom if possible to do so elsewhere. Do not hesitate to light a fire on cool mornings and evenings; and if so fortunate as to have an open fire-place you possess a grand means of comfort and ventilation in the bed-chamber."

THE LIBERATING OF THE RING FINGER, IN MUSICIANS, BY DIVIDING THE ACCESSORY TENDONS OF THE EXTENSOR COMMUNIS DIGITORUM MUSCLE.—A paper on the above subject was read by Dr. Wm. S. Forbes before the Philadelphia Medical Society. The object of the paper was to show why the ring finger cannot be readily extended during the flexure of the middle and little finger. He says:

"In the dorsal aspect of the metacarpal zone in man, dissection shows that the tendon of the extensor communis digitorum muscle that goes to the ring finger gives off a slip on either side, one of which goes to join the extensor tendon of the middle finger and the other to join the extensor tendon of the little finger. These two slips are known as the lateral vincula or accessory tendons. Now, while the middle and little fingers are held in a flexed position, these accessory tendons, by virtue of their attached extremities, hold in check the extending power of the muscular fibres operating upon the tendon of the ring finger, and thus this finger is restricted in its function of extension to a very limited degree.

These accessory tendons are sometimes found in one hand and not in the other. They exist more frequently in the right hand than in the left. Now and then the extensor tendon of the ring finger splits at the point of departure of the accessory slips and then reuniting leaves a button-hole appearance, and again these accessory slips are entirely absent.

In 1857, Mr. J. D., a young musician and a performer on the piano, consulted me in regard to his inability to lift up as he expressed it, the ring finger of his right hand while the middle and little fingers neighboring were held flexed on the keys of his piano.

This restriction did not exist in the ring finger of his left hand; with it he had no trouble. I explained to him the presence of the accessory tendons in his right hand, with their restricting power, and told him of their probable absence in his left; they could be distinctly felt in his right hand, I could not observe them in the left.

At his desire I performed the operation of subcutaneous tenotomy on November 10 of that year. An incision less than a quarter of an inch in length was made through the skin and fascia just below the carpal articulation of the metacarpal bone of the ring finger,

and above the radial accessory slip of his right hand and parallel with, and on the radial aspect of, the extensor tendon of the ring finger.

A narrow blunt-pointed bistoury placed in this incision, with its handle depressed and its blade flatwise, was carried beneath the accessory slip and down as far as just a little above and between the knuckles of the ring and middle fingers, where its blunt point could be felt beneath the skin. The bistoury was now turned with its sharp edge towards the skin, and the middle finger strongly flexed and the ring finger extended, so as to make tense the accessory slip, when with a gentle sawing motion the slip was at once severed; the bistoury, turned flatwise, was now withdrawn through the same opening by which it entered. The accessory slip on the ulnar side of the extensor tendon of this ring finger was divided in a similar maner immediately afterwards by a distinct incision through the skin and fascia on the ulnar side of the extensor tendon of this finger. Not a quarter of a drachm of blood was lost in the two operations. A small piece of adhesive plaster was placed over each incision and a figure-of-8 bandage was carried around the wrist and hand, leaving the thumb free, and kept on for two days, when the patient was asked to perform on his piano in order to keep the cut extremities of the accessory tendons apart. A slight swelling of the parts existed for less than a week. The liberation of the ring finger was complete. The ball of the finger could be elevated an inch farther from the plane of the hand, and my patient expressed his gratification at the extended and great facility with which he could use this ring finger on the keys of his piano.

Since 1857, I have divided these accessory tendons for the purpose of liberating the ring finger in fourteen persons, and in nine of these the operation was performed on the tendons of both hands at one sitting. I do not think at any one of these operations half a drachm of blood was lost. In not one of them did any accident follow the operation. The issue in in all of them was successful.

In two persons who came to my office together, strangers from a distance, I performed this operation on the two hands of each of them in the presence of my friend, Dr. Addinell Hewson, Jr. These two patients said, with emphasis, that there was not only relief in using the ring finger but there wasalso an absence ofexertion, which, before the operation, was constant and forcible along the back of the forearm and hand.

It will be observed that in this operation the totality, the complete sum of the power, of the extensor tendon going to the ring finger is left unimpaired. Nor does the operation lessen in the least the power of the common extensor muscle to extend the neighboring fingers.

Professor Zeckwehr, a teacher of music, in giving his opinion at the Society relative to the advantage of the operation said that his pupil upon whom Dr. Forbes operated gained in a quarter of an hour years practice; before the operation he could raise the finger a quarter of an inch—after it, an inch and a quarter, again of a whole inch in a few minutes. I surely think the time gained a great advantage to piano pupils.

Nerve-Stretching and the Hypodermic Injection of Osmic Acid.—Nerve stretching has now been been on trial for several years as a therapeutic measure in the severer forms of neuralgia and in certain other kinds of nervous disturbance of a more diffuse character. Whilst still an occasional advocate of the operation is heard from in the current literature the absence of reports from quarters whence we ought to expect them is very significant; and the unpublished expression of disapproval on the part of several who have operated with absolutely no satisfaction confirms us in the opinion that the operation is doomed to a period of quiescence; and if some diligent student, by correspondence, brings out clearly the relative advantages resulting from the operation, we expect the period of quiescence would be so protracted as to amount to a cessation of the operation.

We learn (British Med., June 7, 1884), that in a fatal case, when the operation was performed for the relief of tabes dorsalis, "no effects of the stretching could be discovered even after the most careful preparation of sections and subsequent microscopic examination, although extreme distension of the vessels in the anterior roots of the spinal nerves might have been a result of the operation." Nothing was found on or in the tissue of the great sciatic nerve that could be distinctly attributed to stretching. On the other hand the Centralblatt f. Nervenheilkunde, etc., abstracts the work of a Russian observer, who after experimenting on rabbits with definite tension applied to the ischiatic nerve and subsequent post-mortem and microscopical examination concludes that:

1. The stretching of the sciatic nerve causes a traumatic irritation with hemorrhage and a subsequent inflammation in the lateral columns.

2. Separation of the nerves from the spinal cord and subsequent atrophy of the anterior and posterior horns. Moreover Th. Rumpf reports a case of stretching of the sciatic on both sides for the relief of the tabetic symptoms, in which death followed after thirty-two days; there was revealed an extravasation of blood at the level of the eighth dorsal vertebra. There is however nothing in the latter case to show that the effusion of blood was the result of the stretching; it might have been a mere case of post hoc. It contributes nevertheless to the general impression of the insufficiency of the operation to relieve the difficulty for which it was devised.

On the other hand the hypodermic injection of a one per cent solution of osmic acid (also called perosmic acid) seems to be growing in favor. Hitherto as far as we are aware no drawbacks in the way of disastrous results have been reported; and Jos. Lipburger of Innsbruck adds his testimony to its utility. We have no doubt that the experimental pathologist will furnish us later with observations relative to the changes developed. We have not yet heard of the use of osmic acid in the least, and if any of our subscribers have personal knowledge on the subject we should be glad to hear from them.

A Simple Disinfecting Lamp.—A ready means of employing sulphurous acid gas for disinfection is to produce the gas by the process of burning bisulphide of carbon in a lamp, after the manner of a good-sized oil or spirit lamp.

I take an earthenware or metal lamp, fit it up with the cotton wick in the usual way, and then charge it with a mixture of equal parts of common benzoline and of carbon bisulphide. The lamp so formed is lighted in the usual way, and gives off when burning free quantities of sulphurous acid. The lamp can be moved about from one part of the room to another, into cupboards and closets, and into wardrobes and drawers and boxes, with so much facility that it becomes a most useful means for disinfectiou.

The lamp can be further employed with advantage for the disinfection of clothes and for bedding, by placing the clothes very loosely on the iron bars of a bedstead, and by setting a few of the the lighted lamps on the floor beneath the bedstead, a foot or two away from the clothes themselves. In very little time the whole of the clothes are saturated with sulphurous acid vapor, if the room containing the clothes be closed.

The object of adding the benzoline is to give steadiness to the liquid during the process of burning. A common benzoline lamp is quite sufficient for the purpose, and if the flame from it throws off also some free carbon, as smoke, it does good rather than harm except in respect to dust, which is easily brushed away.—Asclepaid, October, 1884.

A Bust of J. Marion Sims has been presented to the Boston Medical Library Association. The donor does not reveal his name.

CONTRIBUTIONS.

HEMOPHILIA.

BY C. H. HUGHES, M. D.
Lecturer on Psychiatry and Neurology, St. Louis Medical College. Honorary Member British Medico-Psychological Association.

ead before the St. Louis Medical Society, Nov. 1884.

The diseases of the capillaries embrace fatty, calcareous and albuminoid degenerations, inflammatory changos, pigmentation, dilatation, contraction, obliteration, embolism, thrombosis, changs in the perivascular spaces, excessive capillary proliferation, especially into new growths and tubercle, and so enlarged and increased in number in normal tissue as to form tumors-teleanquieteses.

None of these morbid conditions have yet been found after death from hemophilia with any constancy. This is the testimony of authority. "The blood vessels examined with the microscope," in bleeders, as they have been inelegantly termed, "have shown no change." "The blood even is apparently unaltered," at least no chemical or microscopic testimony has yet attested to any change in it. Nothing but the simple fact of capillary rupture in spontaneous hemorophilia and of facile, continuous and often profuse bleeding from trivial traumatism, in the traumatic forms are certainly known.

It is but conjecture, without proof, to say the vessels are at fault in this disease, notwithstanding the analogy which we have of local structural lesion in other but dissimilar hemorrhagic diseases, and we must look elsewhere for the morbid cause.

It is a condition of the system which is largely congenital, and often hereditary. Diseases dissociated from the nervous system are seldom, if ever, hereditary, as such, but are transmissible only as predispositions. Phthisis, scrofula, cancer, rheumatism, gout, calculus and other diathetic diseases, save the neuropathic, are later in their development than this and usually require exciting causes conjoined with the predisposing to convert the constitutional tendency into fully developed active disase. This, like many of the nervous diseases, shows itself oftener than other hereditary states of blood (so-called) in infancy and in early life especially.

If it be a diathetic disease it is a diathesis of vascular debility, and if the debility be not proven or provable in any form of morbid degeneration in the capillaries themselves or in the coats of the vessels, capillary or arteriole, or in the quality of the blood, where can we look but to the vaso-motor nervous system. Even where so tangible a condition as fatty degeneration of the capillaries ends in rupture and hemorrhage, the fatty degeneration is as frequently found in the nervous centre as in the kidneys and as the sequella of infarction and inflammation.

We must look therefore to the sympathetic system, of which the most important part is the vaso-motor nerves and nerve centres for an intelligible explanation of the phenomena of hemorraphilia, for under the healthy influence of the sympathetic fibres distributed to the arterial walls these blood vessels are kept in a state of normal tonic contraction. The tonic contraction of the muscular coats of the arteries, even to the smallest arterioles as they ramify and are lost in the minuter capillary system divested of their external coat of connective tissue and finally of their middle muscular coat, to the fusiform transformation of its fibres, is under nervous influence, and although the terminal branches of the sympathetic nerve, like the muscular coat of the arteriole may no longer be traced in the capillaries, the capillary circulation is under the influence of the nervous system, not only through the *vis a tergo* of the heart's pulsating impulse which by multiform ramifications has been modified into a continuous flow out by the reciprocal contraction with propulsive powor of the arterial walls.

"The sympathetic nerves exert an influence on the muscular coats of the arteries similar to that of the cerebro-spinal nerves on the voluntary muscles." They cause contraction of these vessels, a diminished flow of blood through them, if stimulated, and relaxation and an increased flow through them, if divided or lowered in vital tone.

If the flow of blood in a terminal arteriole is augmented through diminished contractile power and consequent dilation or dilatability of its walls, there will of course be a flushed capillary or distensible arteriole system ready to burst or bleed profusely under slighter causes than would excite bleeding in a capillary system supplied by arteriole possessed of greater integrity.

In hemophilia it is the impairment or comparative paresis of the habitual tonic contraction of the arterioles, the diminished tone of the circular fibres which are the capillary sphincters, as much so as the ordinary sphincters which keep certain outlets of the body closed without voluntary effort, that is at fault. It is this weakened influence of the vaso-motor power, that permits certain other forms of hemorrhage of this kind, as of the

stigmata. The suspended tonicity, as Dalton calls it, permits of the "action of a arrest."

Section of the sympathetic fibres of the carotid plexus, for example, which go to the distribution of this artery, causes relaxation of the blood vessels, increased circulation, reddening of the venous blood and increased salivation, while galvanization of their peripheral extremities precisely reverses results through excited contractility.

The effect of dividing the sympathetic then is to paralyze the muscular coats of arteries supplied by its filaments. "Owing to the paralysis the arteries no longer offer their customary resistance to the blood pressure coming from the heart. Their relaxation admits a larger quantity to the capillaries of the corresponding regions and the causes are, increased local circulation." Somewhere in the spinal cord and in the medulla oblongata,extending perhaps a little above (Schiff and others) nearly to the tubercula quariquemina, but not to include them, or more widely scattered in the cerebro-spinal axis (Brown Sequard, Vulpian and others) as shown by the influhnce of cross sections upon vascular tonicity, is the nerve center which is probably chiefly at fault in the hemorrhagic diathesis, and this condition is amenable to such treatment as will impart tone and restore the vaso-motor vigor which in this disease seems impaired.

This is the writer's conviction, and the result of his observation and therapeutic experience. Galvanizations that give tone to flabby muscles and contractility to dilated or abnormally dilatable arterioles and internal measures that reconstruct the nerve centres, are the indications of common sense, seconded and confirmed by so much as we are yet enabled to see of the science of the subject. The principle of reflex contractile power as directly revealed in a study of the physiology of the subject may likewise be appealed to with success.

The contractible power of hot water to the feet and skin and the electrical irritation of the central or peripheral extremity of the sciatics.

By these means the reflex vascular dilatations which first follow the local injury may be at once contracted and by there assiduous repetition the tendency to the recurrence of these hemorrhages from the usual slight causes would be finally overcome. The best final styptic in these cases is a constitutional improvement, in my judgment, in the relaxed vaso-motor tonicity. It is too hopeless a view to say they are constitutional bleeders, and therefore cannot be helped, and it is unscientific and illogical to say, in the face of all the negative microscopic revealation that there must be disease, though we cannot find it, in the capillary coats, and not to look further where its cause is apparent.

If one-tenth of the effort heretofore made to find the cause of hemophilia in the coats of the capilaries had been directed to the nervous system and its obvious physiological relation to the vascular walls, as far they go into the capillaries, the solution which we offer of the abnormal or pathological relations of the nervous system to this disease would probably long ago have been accepted by the profession.

The relationship of the constitutional hemorrhagic proclivity to the neuropathic diathesis is a subject which has been as little investigated as the nervous causative relation of the otherwise unaccountable phenomena.

If it be a diathetic condition it must belong to the neuropathic class of morbid tendencies. It is probably only a "weakness of the vaso-motor system worthy to be classed along with the facile propensity shown by some individuals to take cold from slight provoking causes and present the vaso-motor phenomena of congestion and catarrh.

In this sense the bleeding propensity is a diathetic one, for it is often congenitally manifested, but it sometimes appears in habitual drinkers later in life, where no earlier evidence had existed and where the family history gave no record of such a predisposition having been latent in the constitution.

Repeated intoxication and chronic habituul alcoholism weakens the control of the sympathetic nervous system over the vascular and gives us hemorrhagic conditions, as well as those other changes in the nervous system found in alcoholics;proliferate changes and indurations in the central tissue, etc.

Alcoholism develops epilepsia, which is largely a vaso-motor and therefore a so-called functional nervous disease, especially when brought on by intemperance in alcoholic liquors.

Finally the treatment of the hemorrhagic diathesis as a lesion of the sympathetic allied to other forms of constitutional or acqnired lowered nerve tone, adds confirmation to the hypothesis, and we may be successful in changing the propensity to bleed so easily, if we can have an opportunity to persevere in our measures for rebuilding the organism and restoring tone to that part of the nervous system where the lessened control resides. The trouble has been with these patients, that when they are not bleeding they do not regard themselves as reqniring medicine, and physicians have looked upon them as only

cases for surgical interference during the hemorrhagic crisis, unless the local extravasations, about the joints especially, should further claim the medical adviser's attention. In such cases the unfortunate patient may fortunately receive some beneficial general tonic treatment, for a bleeding about a joint which is an extravasation, would suggest it, while the blood escaping suggests to the medical mind generally no further measure than to stop the blood, unless, peradventure, there should follow a somewhat persistent state of physical exhaustion, when a plan of treatment is likely to be adopted such as would restore physical vigor and incidentally to some extent give tone to the weakened vaso-motor condition which appears to be at the bottom of the trouble.

The following briefly detailed mild case will suffice to show what may be done towards eradicating the tendency to hemorrhage.

A boy now eleven years of age, an active and healthy school boy, in early infancy and earlier childhood bled profusely and obstinately from the slightest causes, such as the lancing of his gums in infancy and later spontaneous and profuse hemorrhages from the nose would occur very often, taking place in the night or day time. Malarial empoisonment always sufficed to bring on a bleeding from the nose which would be persistent in recurring, notwithstanding the use of styptics, until after the system would be brought under the influence of full doses of quinine and chloral, both agencies which we know impart vaso-motor tonicity, and diminish interarteriole blood pressure. The mother of the boy was an easy and vicarious bleeder, nasal hemorrhage occurring at one time in her life, before this boy was born, with remarkable frequency, the bleeding once occurring from the ears, and several times from the lungs. The boy had night terrors very early in his life, some convulsions and was a somnambulist, which led to his coming under treatment. The treatment for the night terrors, and the subsequent somnambulism (or somnavolism as I prefer to call it), have so modified the child's constitution that for three years past he has had no hemorrhage whatever; and from having been delicate, impressible, extremely sensitive and nervous, he has developed into quite a steady nerved, unexcitable boy, without night frights and but slight displays and infrequent, of somnambulism. I consider the transformation which has taken place in this boy as quite remarkable, and his future, with reference to the recurrence of the hemorrhagic inclination, quite hopeful

In conclusion, if we treat the hemophilia somewhat as we would epilepsy or exophthalmic goiter, though not quite so vigorously, by taking care of the impaired tonicity of the sympathetic system, we may in future succeed better.

OPERATION FOR CANCER OF THE RECTUM.

BY DR. WALTER COLES.

Read before St. Louis Med. Society, Nov., 1884.

Mr. President: I desire to report a case of extirpation of the rectum for cancer. In October last Mr. G— aet 59 was referred to me through the kindness of Drs. Freeman of Livingston County and Hurt of this city. The patient had been suffering with disease of the rectum for eighteen months, characterized by much pain in defecation and a discharge of mucus and blood. There was also a disagreeable sense of the presence of a tumor or foreign body in the rectum, and for some time there had existed considerable difficulty in evacuating the bowel when the feces were hard. The patient was examined under chloroform in which Dr. Hurt assisted me. We found an epithelial cancer involving the entire circumference of the bowel and extending from within a quarter of an inch of the external sphincter to nearly a finger's length within. There was quite a decided stricture which bled when the finger was pushed past it. The extent of the disease upwards into the bowel was apparently well defined, as healthy tissue could be recognized by the tip of the finger beyond the stricture.

As neither the urethra, prostate gland or bladder seemed to be involved, this was deemed a suitable case for excision, and in view of the excellent physical condition of the patient, both Dr. Hurt and myself advised a radical operation.

The patient objecting to going into hospital in this city, requested me to operate upon him at his home in Livingston County. On October 24, assisted by his family physician, Dr. J. B. Freeman, and a number of very kind and efficient medical gentlemen of Chillicothe, I extirpated the rectum, partially preserving the external sphincter, which was not involved.

The method of procedure was as follows: the patient being placed in the lithotomy position, a metallic sound was first passed into the bladder to serve as a guide and steady the parts. An incision was then made with

a bistoury from the center of the perineum backwards across the anus to within half an inch of the point of the coccyx; the fibres of the external sphincter were then carefully dissected back laterally including the verge of the anus on each side. The attachments of the rectum were next loosened posteriorally and in each ischiatic fossa, and finally separated from the urethra prostate gland and neck of the bladder. The bowal thus freed from all surrounding attachments was split open posterially and pulled down. Silver wires were then passed through the healthy tissues above the diseased portion and the gut cut off with scissors, the incision being made in successive steps through healthy structure between the margin of disease and the wires, which were next passed through the integument around the anus and secured witn shot. Before doing this however, the wound was carefully washed out with hot water and sprinkled with iodoform. A short rubber drainage tube was also placed in each ischiatic fossa and the ends brought out through the cut immediately in front of the coccyx, which was left putulous. The incision in the perineum was carefully closed with wire, and a dressing of carbolized oil applied. Fearing that there might be some difficulty in micturition, I took the precaution to pass a catheter into the bladder before the patient recovered from the anesthetic, and allowed it to remain for twenty-four hours.

Although the operation was performed with as much expedition as is possible in such cases, the patient was in a profound state of shock when taken from the table. The anesthetic which consisted of an equal mixture of chloroform and ether, carefully given through an inhaler, seemed to act badly and in a very short time the patient showed alarming symptoms of syncope. After the operation however, reaction came about satisfactorily, and in the course of a few days the patient was in a very promising condition. I am inclined to think from the experience I have had, that operations about the rectum are peculiarly liable to be attended with shock. This cannot be accounted for altogether by the hemorrhage, which is of course considerable, but is rather due to the nervous relation of the parts.

The following extract from a letter written by Dr. Freeman will indicate the further progress of the case. Eight days after tne operation he says, Our patient seems to be doing very well indeed. The pulse this morning is 72, full and steady: respiration seemingly normal, temperature 99.2. Wound looks well. The drainage tubes have both come away. One of the sutures came out this morning. Perineal portion closing nicely. Bowels moving naturaly once a day; urinates naturally and without pain. He has not as yet suffered apparently at all. Appetite good, but he has not slept well for several nights. I have given no medicine of any kind since the third day, from the fact that I saw no indications calling for anything; in fact I think he has as much strength and is more free from pain than before the operation. However, after reading your letter of yesterday I shall commence with quinine and iron in deference to your suggestion. I shall also give some bromide and chloral unless he sleeps better."

I will further state that at last accounts received one month after the operation, this patient was doing well in all respects, and the prospects are that he will make a favorable recovery. Whether the disease will return again is of course a question no man can answer. We can only hope for the bost, and from the statistics which we have of this operation we have very good grounds for hope. In properly selected cases this is certainly as promising an operation, and perhaps more justifiable than that for cancer situated in many other parts of the body. Cancer of the rectum is generally epitheliomatous in character, a variety which is well known to hold out the best hope of cure by a radical operation. In June last I reported to this society a similar case in which I excised the rectum for cancer. The lady on whom that operation was performed was in a most distressing condition of ill health. She made a good recovery, and I am happy to state that she is now in perfect health.

The functions of the bowel are performed with regularity and she is capable of enjoying life in all respects. Before closing my report of this case, I wish to mention a matter of interest in both a pathological and prognostic point of view since it tends strongly to confirm the idea that cancer is to a certain extent hereditary, or that it runs in families. The circumstance to which I allude in connection with this case is this; within a few years Mr. G., has lost two brothers with cancer both of them dying of cancer of the alimentary canal. In one, the disease affected the stomach, and in the other it was located in the rectum. Since learning these facts I have formed a less favorable prognosis, as there seems to be a strong cancerous predisposition in the family.

I have so recently published a paper on ex-

cision of the rectum that it is scarcely necessary for me to prolong these remarks.

There is, however, one other point of practical interest upon which I shall add a few words, and that is in reference to the management of the bowels after the operation. The idea is very general and natural that defecation in such cases is something to be dreaded on account of the pain produced, but where the bowels have been thoroughly evacuated before the operation, which should always be done; there is no great pain even though a movement occur within twenty-four or forty-eight hours. Patients will express themselves as surprised at the entire freedom from pain. In both of the cases which have recently come under my notice, the patients have at no time complained of any pain whatever. In the first case the bowels were freely moved on the third day in spite of the restraining influence of opiates and as this occasioned no distress they were allowed to regulate themselves thereafter; there being a painless action every day or every other day.

From Dr. Freeman's reported the second case behaved very much in the same way. In neither of these cases did a normal condition of the bowels seem to work any detriment to the patient. Hence I am inclined to think that the advice given by many writers, to keep the bowels locked up for a week or ten days, is unnecessary and perhaps in the long run promotive of greater harm than good, provided, of course, that proper care is taken to cleanse the parts after each evacuation.

For, under such circumstances, I have seen the process of healing progress with remarkable rapidity.

In the case of the lady operated on last spring there supervened quite a severe attack of diarrhœa about the third week occasioned by eating largely of berries, but even this circumstance did not seriously retard recovery. The patient only complained of a slight scalding sensation but no more than is common in normal conditions of the rectum during frequent discharges of acrid material. Neither was there at any other time than during this loose condition of the bowels any difficult in retaining the feces. The fact that the lower portion of the rectum is empty in normal conditions, usually prevents any serious surprise or accident from taking place, in the way of a premature discharge of feces. Even where both sphincters have been removed the bowel seems to acquire a certain power of retention. These are matters of much practical importance since they remove what would otherwise be a serious objection to the operation.

When any considerable portion of the rectal wall has been removed and retraction of the stump takes place, which will perhaps always occur owing to the cutting out of the stitches, there is a space between the anal outlet and the end of the bowel which is left to heal by granulation, and in which particles of fecal matter are apt to lodge especially where the discharges are consistent.

Owing to the absence of muscular grip, these particules are apt to be retained and cause considerable annoyance, unless the nurse is instructed to remove them either with the finger or by means of a syringe.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

REPORTED FOR THE REVIEW.

(CONTINUED.)

Dr. Dean.—There are two points in the remarks made by Dr. Hughes that I think are well settled; one is, that with the hemophilia the diathesis is in most cases hereditary; and the other is that pathologists are not a unit as to any constant pathological change in the vessels and capillaries, or as to how much, in the hemorrhage, is diapedesis and how much rhexis.

Dr. Mulhall.—I would suggest that hereafter in speaking to this subject, it be stated whether congenital or acquired tendency to bleed is intended. Dr. Love states there are cases of congenital hemophilia that have been cured. I have seen quite a number of cases die but I have never heard of one being cured. If Dr. Love remembers the authorities which cite these cases I should like to hear them. The acquired diathesis may certainly be cured just as much as malaria or alcoholism is curable.

Dr. Love.—I simply gave the authority in a general way that cases of bona fide hemophilia have been cured; the fact that they are incurable has not been sufficiently established; these cases are cited upon good authority. A writer in the Encyclopedia of Medicine which has recently been published, states it is a fact now established, that there are real cases of hemophilia, and moreover states that they can be cured. The case which I reported was of a child fourteen months old; it had an attack of bleeding four months before, the result of a traumatism, which was of the same character as upon the occaion when I was called. The cause was very slight; a slight wound occasioned by a toy-gun. Of

course it was very largely disturbed by the condition following the previous hemorrhage, for it bled for several days. Now I suppose the fact that this case got well is an evidence, according to Dr. Bremer, that it is not a true case of hemophilia.

Dr. Bremer.—Not at all.

Dr. Love.—Well, if it gets well from the disposition to bleed I suppose it is?

Br. Bremer.—You cannot settle that question until the child is grown up, and, besides, did you investigate the family history? Do you know whether the child came from a family of bleeders? That is to say, is there any hereditary tendency? For hemophilia is the very prototype of all hereditary diseases.

Dr. Love.—In this case I cannot say that hereditary tendency to hemorrhage has been clearly established. I could not go as far back in the history as I should like to have done to satisfy myself; I know there was a disposition to bleed on the part of one of the relatives.

Dr. Hughes.—Wherever there is an arteriole there must be an innervation? Now the idea is this: let that represent an innervation there, and in fact, an arteriole, and this the capillary system here. (Indicating on blackboard). Now cut off the innervation from this and what do you have? you have a dilatation of the arterioles, don't you, doctor, there is no question about that?

Dr. Bremer.—Not only of the arterioles but also of the arteries.

Dr. Hughes.—Yes, sir; of course. I don't want to be misunderstood. Now then, you have a dilatation of the arterioles. Now my position is simply that it is a deficient innervation of the nervous system that permits the current of blood to flush these capillaries in succession and produces this distension and dilatation; that the *vis a tergo* from the heart here is less rapid in the capillaries than it is in normal persons. That is all the position I take; possibly as time rolls on some better explanation of hemophilia may be offered.

Dr. Bremer.—That will not produce hemorrhage.

Dr. Hughes.—I don't think it produces hemorrhage. The *vis a tergo* from the heart permits the current of blood to be widened, and the flushing of the capillaries and their distension, and as a consequence a slight prick there will produce hemorrhage in one of these individuals which would not in a normally constituted person; that is my position.

Dr. Bremer.—Are bleeders flushed?

Dr. Hughes.—The capillaries are flushed.

Dr. Bremer.—Then there is an injection of the skin; but to my knowledge bleeders are not flushed, they are pale as a rule.

Dr. Hughes.—I don't think that's so.

Dr. Bremer.—I think it is a common fact of observation, that wherever the capillaries are dilated, as, for instance, in anger or shame, the physiological prototype of the capillary dilatation, there is flushing of the face. But that we do not find in bleeders. The theory that the doctor has propounded is not an entirely new one. I cannot say whether any investigations have been made in regard to vaso-motor centres, post-mortem or not. In regard to Dr. Love's remarks that medical men in Germany, or the old country in general, are not good therapeutists, I do not quite subscribe to that. I don't say that they do remarkably well there or that they cure more cases than they do here. Therapeutics is an international science, it is cosmopolitan, countries have nothing to do with it. On an average there may be more surgical talent in this country: and I am perfectly persuaded there is, than in Europe, with the exception of England. But in regard to therapeutics I believe the balance is about even. But I insist upon this fact, that in Germany, families have been known, and their history has been followed up not for years only, but I believe for centuries, and there was this constant occurrence of the bleeders in those families. As Dr. Dean remarks, these families are exceeding fertile; as a rule they have twelve, thirteen or fourteen children.

Dr. Love.—I do not wish to be understood as intending to cast any reflection upon our German friends; I have a great respect for the work they have done.

Stated Meeting, December 6, 1884.

Dr. Heacock announced the death of Dr. Edward Wright. A committee was appointed to prepare suitable resolutions.

The resolutions reported by the committee were unanimously adopted.

Dr. Mulhall.—I rise to speak of the disease of which Dr. Wright suffered and died. He applied to me about a year ago with a peculiar sort of cough. I examined his lungs very carefully and could find nothing wrong; but his case was an example of tuberculosis, which, in my opinion, commenced in the larynx; at least the only evidence that I could get of tuberculosis was in this locality. I informed him he was suffering from tubercular laryngitis and that very likely the same affection existed in his lungs, although I couldn't discover it. He was inclined to

doubt this opinion and rather attributed his symptoms to disease of the kidneys. I examined his urine and found a trace only of albumen; however, this was an example,(of which we have many), in which tubercular patients persuade themselves that they are not suffering from consumption; and they are disposed to refer their disease to any other organ rather than to the lungs. I advised him then to give up his practice and leave the city, and try the effect of a change of climate; this, in my opinion was his only chance of recovery. He couldn't believe that he was troubled with any tubercular affection, especially as there was no history of such disease in his family. He went to Georgia a month or two afterwards. I saw him when he returned about four or five months ago; there was then no doubt whatever respecting the nature of his trouble. The next information I received of him was the notice of his death, which occurred in Texas, whither he had gone for his health.

* * *

Dr. Meisenbach.—I have a pathological specimen to present. About seven weeks ago a lady came to my office stating that she was feeling badly and supposed herself pregnant. She said that the symptoms she experienced were not those of ordinary pregnancy. She is a young woman, the mother of two healthy children. I examined the abdomen and it was enlarged; apparently, she was pregnant and then between the fifth and sixth month. I satisfied myself further by making vaginal examination and found the symptoms of pregnancy manifested by the deep discoloration of the vault of the vagina and the surrounding tissues. I detected no evidence of fetal life. In order to satisfy myself further, I desired her to call at my office in about five or six weeks. She didn't return, but last Tuesday I was called to see her and she said that she had been having pains all day attended with little or no hemorrhage. At the time of my visit she was looking well, and felt well. I didn't even think it important to make a vaginal examination, and, as I was in a hurry, I ordered $\frac{1}{6}$ of a grain of morphine combined with a little quinine and tannic acid. I was called again within half an hour and was told that she was suffering great pain. Upon my entering the room I observed at a glance that she was having active uterine pains. On placing my hand upon the abdomen I found the uterus contracted, and making an examination I found the membranes were already protruding from the vagina. The pains became regular. The membranes were very thick; I had to take a pin and rupture them to allow the amniotic fluid to escape. The fetus was decomposed, death having occurred some time ago. In delivering the placenta I proceeded by the method, which I usually adopt, that of Credé, expressing the placenta by gradual manipulation of the uterus. The placenta came away with a sudden lurch. This was in my experience, a very unusual manner of its expulsion. I thought there must be something wrong, especially as the fœtus was already decomposed. So after taking the placenta away and getting the womb in good condition, removing all clots etc., I examined the placenta and found that it had a peculiar appearance on its external surface; it was smooth and presented yellowish waxy looking points. Upon cutting it I found that that portion which was attached to the uterine wall was remarkably thickened and had the appearance of waxy or amyloid degeneration. The membranes were excessively thick, and the funiculus instead of being attached near the centre, as is usually the case, was attached at one extreme edge of the placenta and was partially adherent to the membranes, and at the site of the attachment of the cord to the placenta, there was a huge clot, indicating that loosening of the placenta had probably taken place there first. On inquiring into the case I found no history of any syphilitic taint or any hereditary cachexia. These degenerations, according to investigation, are the most usual cause of abortion, even in cases where apparently there is no change in the placenta. Upon making a microscopical examination there will be found what was for a long time considered to be fatty degeneration, but which according to the investigations of Heitzig, in his laboratory in New York, proved to be a waxy or amyloid degeneration instead of a fatty degeneration, although both conditions may be present at the same time. What I wish to call particular attention to is the old practice of giving morphine, which most physicians once pursued, when called to these cases, that is, in cases where there is probably a retarded uterine pain and threatening abortion. My experience is that in a number of cases the administration of morphine, given under these circumstances, does not retard the uterine action but seems to increase it. I recollect a case which occurred sometime ago, in which a physician in this city was called to a lady who was in the seventh month of pregnacy; he was called at four o'clock in the morning. There were at that time active uterine pains and he gave an hypodermic injection of morphine, stating

that she would soon be all right. He was called again at eight o'clock the same morning, and again gave a prescription of morphine powders and within one hour she was delivered of a child. This has occurred to me time and again; morphine seems to have a tendency to increase that condition. I would like to hear the experience of others in regard to this matter.

Dr. Dean.—My experience does not coincide with Dr. Meisenbach's. In labor at full term, if the pains are irregular and inefficient a dose or two of morphine may give the woman complete rest and the labor may begin and go on vigorously or regularly. A few hour's rest are very valuable. If the labor is about going normally, a single dose of morphine will not stop or retard it, and if not the patient gets a few hour's rest. Also in cases of threatened abortion, or miscariages I have had good results on many occasions, even sometimes after considerabe dilatation of the os. I have carried the patient tofull term. The opiate does no harm and may do much good.

Dr. Hurt.—There is a character of uterine pain which is designated by the term false pain; a lady imagines herself in labor and in great pain, and the pains are more or less periodical. In cases of that kind morphine or other preparations of opium will test the character of the pain. If the labor is not advancing, if it is not actual labor pain, it will temporarily cease. There is another condition of the uterus in active labor in which morphine is indicated as an assistance to the insufficiency of the labor, and that is where there is a rigid os. Perhaps nothing will reduce the rigidity of the os uteri in labor so well as a full dose of morphine; and while it will not fully arrest the labor, still it may suspend the uterine action for a short time; the pains will recur under much more advantageous conditions afterwards, because the morphine almost always has the effect of relaxing.

Dr. Prewitt.—Dr. Meisenbach says there is no history of syphilis in this case. I strongly suspect that the true cause is syphilis. We all know how difficult frequently it is to obtain a syphilitic history from patients and that they will endeavor to mislead or misrepresent matters. I recollect that Dr. Boisliniere a year or two ago presented to the Medico-Chirurgical Society a specimen similar to this. The doctor presented the specimen as a case of fatty degeneration of the placenta and stated that there was no history of syphilis in the case; but it so happened that one of the physicians present knew the husband of the lady, and had treated him for syphilis some years before; yet they denied the facts and Dr. Boisliniere was led to believe that it was simply a case of fatty degeneration of the placenta arising from some other cause. Of course miscarriage must take place under a condition like that, the vitality of the fetus cannot be maintained, and miscarriage is inevitable. Neither morphine nor anything else can prevent it. It is only at the earliest stage of threatened miscarriage that we can hope to arrest the uterine contractions by opiates. I am very sure I have seen threatened miscarriages controlled even where there has been a certain amount of hemorrhage, but after it has progressed to a certain period nothing will control it. I suspect that the facts in this case if known would show that there is a syphilitic taint somewhere.

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Dr. Prewitt.—I have here a papillomatous growth which was removed from the larynx of a child about two and one-half years of age. About three months ago there appeared at the clinic of the Missouri Medical College a child to which my attention was directed. I found it breathing with difficulty; there was an evident obstruction of the breathing. I examined the lungs and found nothing wrong about them, and the character of the respiration and great sinking in of the chest at each inspiration showed at once that there was an obstruction of the larynx or trachea. There was a degree of elasticity of the sternum and ribs such as I never saw before in any case; at each inspiration the sternum would seem to sink back to the spinal column. I learned that the child had breathed always with some difficulty even from its birth; nor did it cry like other children; that this condition of difficult breathing had been progressing until it had reached the point when it was almost at the verge of suffocation. Taking into consideration the history of the case I made a diagnosis of tumor of the larynx and directed them to take the child to Dr. Todd for examination with the laryngoscope. Dr. Todd agreed with my diagnosis, and the child being near suffocation he recommended, as the only thing which would be of any avail, the performance of tracheotomy to relieve the impending suffocation. This was done and we inserted a tube. The child got along very nicely and soon recovered from the effects of the operation. Dr. Todd had the case under observation for some time and endeavored to get at the tumor through the mouth at various times; but you can readily understand that in a child two and one-half years of age this is a very

difficult matter. He finally abandoned it in despair and sent the child back to me. On Wednesday last I operated performing thyrotomy. A tube was introduced into the throat. I took out the outer tube and simply left the inner tube in situ, so as to get rid of the flange of the tube; but even then the space in which to operate was very, very small and the larynx was deep so that I had to dissect down quite an inch, possibly more, in depth to reach the larynx. I placed the child so that its head hung low and the blood escaped from the mouth and nostrils. After dissecting down to the larynx I divided it in the median line, and found the larynx absolutely crammed with this papillomatous growth. I removed it by picking out fragments, a considerable portion of which I have here. But of course a great deal of it was lost; a great deal was mashed during its removal with the forceps. The vocal cords, and in fact the entire inner surface of the larynx, seemed to be covered with this growth. The incision was made exactly in the median line and the attachment of the vocal cords was not disturbed. I could trace their outline but the cords were very much altered in appearance; they looked red and vascular; and after the removal of the growth I simply applied a solution of nitrate of silver, twenty grains to the ounce. I think likely I ought to have applied something stronger to prevent the recurrence of the growth, but I did not. I then closed up the larynx with catgut ligatures and the child since has been doing very well. I think this is the youngest case upon record in which thyrotomy has been performed for the removal of growths from the larynx. I think Mackenzie states that in no case has the operation been done for tumor of the larynx in a child younger than three years of age, perhaps not so young as that. Thyrotomy was necessary in this case because it was impossible to get at the growth in any other way. The external incision extended from above the hyoid bone down to within a quarter of an inch of the margin of the tissues that held the tube; I did not cut through the cricoid; I only dissected down to the thyroid cartillage and divided it. I held up the parts with hooks while I removed the growth. The opening through which the operation was performed was very narrow. I did not use any artificial light to illuminate the parts, as the natural light was sufficient. The child was a male. I suppose from the history of the case as given me by the parents that the trouble was present from birth though it was not congenital. The child will probably recover, but the growths may return. The larger piece of growth here seen came out of the child's mouth; it was pushed up into the mouth and there removed.

Dr. Pollak.—Is not that a good case for electrolysis?

Dr. Prewitt.—Possibly; but would you have applied it after the operation?

Dr. Pollak.—No; make the incision and then put in the small instrument like a wire and remove the growths.

Dr. Prewitt.—I don't see what would be gained by that method over picking them off of the mucous membrane with the forceps. The tumors were situated below and above the vocal cords and upon them, also upon the cricoid cartilage, and the upper portion of the thyriod cartilage. All these parts looked red and vascular and had a peculiar appearance; I could only determine them by passing the probe into the pharynx and lifting them up. There was not a great deal of hemorrhage during the performance of this operation; of course the parts bled to a certain extent. I made a diagnosis upon the clinical features of the case, not from any inspection of the growth itself. I used chloroform given through the tracheal tube during the operation.

Mr. Mulhall.—I saw this child I think, about nine months ago, at a dispensary which I attend, and, as Dr. Prewitt remarks, there was then evidently an obstruction in the larynx; and inasmuch as laryngeal growths in children are nearly always papillomatous, my diagnosis was laryngeal papilloma. Of course I suggested tracheotomy as a preliminary or provisional measure, which the mother declined to permit.

Dr. Prewitt. — Perhaps the symptoms were more urgent when I saw the child.

Dr. Mulhall.—Perhaps they were; they were very urgent even when she appeared with the child at the time I saw it; so much so, that I suggested the operation should be done immediately. The child passed from under my care and I heard no more of it until to-night. The plan of treatment that I had outlined for myself was to perform tracheotomy and afterwards endeavor to get rid of these growths without thyrotomy, inasmuch as thyrotomy is rather a fatal operation, not to the life of the patient, but to the voice of the patient; not so much from the removing of the growths but from the injuring of the larynx; when the thyroid cartilage is divided, the parts are not very likely to be well co-apted; and whatever the reason may be, it is known, that a hoarse unequal voice frequently follows this operation. I believe the mortality is at least forty per cent.; gen-

erally occurring from pneumonia. My idea with reference to the case was to adopt one of two procedures; either to introduce the forceps and remove the growths or employ the procedure which was first suggested by Voltolini of Breslau—that is take a dry sponge and introduce it into the larynx and rub the papillomatous growth; they very frequently disappear under such treatment. He reports many cases in which papilloma has disappeared after the adoption of this simple procedure. I think that thyrotomy was perhaps justifiable; but I think that the other procedure should have been first tried, inasmuch as the life of the child was not at stake after the tracheotomy was performed and there was no hurry about removing the growths. As Dr. Prewitt remarks he applied a very weak solution—twenty grain solution of nitrate of silver to the ounce; this would have no effect in preventing the recurrence of the growth. The least that should have been done would have been to apply the solid nitrate of silver, and had it been my case I would have used my favorite remedy,galvano-cautery.

Dr. Prewitt.—May you not have injured the vocal cords by so doing?

Dr. Mulhall.—I don't think so, on making a very superficial application of the galvano-caustor. I should have made the application to insure the absolute destruction of the growth. As it is I think a recurrence of the growth is almost sure to take place.

Dr. A. Green.—I would like to ask Dr. Mulhall what gives rise to pneumonia after such an operation and if it might not be pneumonia which we call swallowing pneumonia, i. e., from swallowing blood or some other particles of the matter. If it occurs from this cause I should think by applying the sponge some of the little particles would be forced into the trachea and lungs, and thus more likely cause pneumonia, than the operation of thyrotomy?

Dr. Mulhall. — By rubbing with a sponge, the object is not the removal of the growths.

Dr. A. Green.—But some of the particles would be rubbed off.

Dr. Mulhall.—I don't think they would do any harm if they were.

Dr. Rumbold.—The growth of the larynx which Dr. Prewitt has exhibited to-night is something more than a gelatinous body; it is somewhat firm. I recollect passing a dry sponge down the larynx of a patient for a condition which I concluded to be tumors of the larynx of quite recent growth. I rubbed the tumor off; where it went to I did not know at the time, but the patient told me he coughed it up the next day.

Dr. Prewitt.—I will say it seems to me the statements made by Dr. Mulhall are a little inconsistent. Voltolini he says, simply rubs these growths and they disappear. Now if they disappear so readily why should they recur when entirely removed from the mucous membrane? If they are easily removed or gotten rid of by simply rubbing the surface, not even rubbing them off, why should they recur when the entire growth has been removed from the surface. I ought to have stated that Dr. Todd attempted to do this; he attempted to pass a sponge in and rub them off, but was unable to accomplish it. The child was young and struggled and I think he gave it chloroform, but even then he did not succeed in managing it. I should have some apprehension about applying the galvano-cautery to the larynx under such circumstances. It seems to me it would require an extremely delicate touch not to injure the vocal cords and I would rather leave it to some more expert operator than myself to attempt it. I should have much more fear of injuring the vocal cords by the galvano-cautery than I would by using the forceps and picking off these growths.

Dr. Mulhall.—Dr. Prewitt seems to be under the impression that the use of the galvano-cautery implies a very formidable operation and that there is danger of burning the whole cord. The galvano-cautery can be applied to a space no larger than a head of a pin and it doesn't require any particular expertness to do it either. There is no necessity of wiping the whole surface of the cord with the galvano-cautery. With reference to the statement of Voltolini it is a fact that you can remove these papillomata and they may recur even after severe operations. Warts of the hand may be removed sometimes by simply destroying their surface; they frequently disappear after this is done. And so in these cases I presume the same effect is produced by his plan of procedure; and I think that at least this should be tried before resorting to the radical operation.

Dr. Dean.—With reference to the papillomatous growth, it is not true, as was formerly supposed, that the papillæ grow into the epidermis; the very opposite occurs; the epithelium grows down between the papillæ, finally chokes and constricts their bases, until the circulation is nearly cut off and a very little rubbing or force or drying will cause them to fall off or die.

* * *

Dr. Coles read a paper in which he re-

ported a case of extirpation of the rectum for cancer. (Vide paper.)

Dr. Dean.—At the time that Dr. Coles reported a former case I think Dr. Prewitt, myself and some others concurred in stating that the majority of these cases of cancer of the rectum come to us too late to be operated upon successfully. Yesterday a friend of mine living in this city asked me to examine a friend of his from the country, who had come here to consult some surgeon, and had given a history of dysentery, bloody stools, etc., for four years. On examination I could with my finger little more than reach the ring that extended entirely around the gut; the point of the finger seems to come to a broken down border, but on using a bougie I passed it through to another ring, caused by a breaking down of the middle of the cancer ring, then dividing the one ring into two, and when I withdrew it I found shreds of blood and pus. On examining some of these shreds, I found that they were epitheliomatous in character. This is a case in which I don't think anything could properly have been done by an operation even if he had come much earlier. The bulk of the tumor was too high up from the first.

Dr. Prewitt.—These growths of the rectum are usually of a very low grade of malignancy, and I believe that when they are seen at a period when they can be excised completely that this is the proper course to pursue, because there is always a fair prospect that they will not return if they be completely extirpated. But, as Dr. Dean has suggested, they rarely come to the surgeon at the period when they can be entirely extirpated; or the patients are unwilling to submit to an operation until they have become very distressing, until they have extended beyond the reach of the surgeon's aid, until they have extended up too high, to a point which cannot be extirpated. In that case the only resort left for the comfort of the patient, is left lumbar colotomy, which is a comparatively safe operation and is likely to give a good deal of comfort to the patient, and takes away a source of irritation, that otherwise would hasten the growth and promote its more rapid breaking down. The constant passage of fecal matter over the diseased structures, the effort at defecation and straining of tissues is certain to lead sooner or later to ulceration above the point of obstruction. This is the rule in all strictnrings that ulceration occurs above the point of stricture whether it be the urethra, the bowel, or esophagus, or any other mucous tract; where there is strictnring there will certainly be ulceration above the point of stricture sooner or later; and this ulceration is liable to produce long fistulous tracts that open into the peritoneum setting up peritonitis and kill the patient directly in that way. These long fistulous tracts, these fistulæ *in ano*, as they are oftentimes supposed to be, simply fistulæ *in ano* and operated upon as such, of course afford no benefit whatever by reason of this ulceration which takes place above and finds a tract down making its appearance upon the buttocks below at some point so that colotomy becomes the only resource where the growth is of such a character that it cannot be entirely extirpated; and I have no doubt if performed at an early period, the earliest period that the patient would permit it, provided the tumor or growth be not of that character when we can hope to extirpate it, and just so soon as we can determine the fact that it cannot be extirpated, I believe that colotomy ought to be done and I think it would lengthen the life of the patient and make him far more comfortable for the time he has to live.

Dr. Mudd.—I would like to ask Dr. Coles if I understood him aright in saying that the growth extended to within a quarter of an inch of the skin surface?

Dr. Coles.—Yes, sir.

Dr. Mudd.—I think that Dr. Prewitt's remarks about the success which attends the operation being dependent upon the thoroughness with which the part may be removed is entirely true; but the operation is beneficial not only in those cases in which you can remove the entire portion that is involved, but it is beneficial in those in which you cannot remove all of it—in which you may recognize parts that still remain as cancerous growths. For instance you can derive very great benefit in many cases, just by curetting or rubbing off portions of the growth, or removing the larger portions of it, taking away such portions as you may thoroughly and then curetting or scraping off such parts as cannot be removed entirely, Now I think it is the experience of operators who have had most to do with this operation that it is hardly safe to leave the anal orifice where the cancerous growth begins or where it ends down so close to the opening as in the case of Dr. Coles. The success that has attended the operation as reported by Dr. Coles is very gratifying. I should like to know whether that growth returns, and if it returns, whether it returns at the skin surface or whether it commences from the upper portion. I think it would have been a safer operation to have removed the anal orifice also, notwithstanding the discomfort

which comes from the loss of the sphincter. There is one thing remarkable in these operations, that is, the ability with which nature acts against septic conditions. You may remove two, three, four, or five inches even of the rectum, leaving the surface of the rectum—the cut end of the gut and the skin widely separate, simply packing the part with antiseptic sponges or compresses for twelve, twenty-four or forty-eight hours if possible, and at the end of that time allow the bowels to have their course, let them flow over this raw surface and it produces but little irritation, but little inflammation, and but little absorption during such time from the passage of this irritating matter from the bowel; it is not a source of discomfort to the patient nor does it seem to be a source of irritation to the wound. I remember very well a case,reported I think in which I removed the greater portion of the tissues of the ischio-rectal fossa upon either side, removing the recto-vaginal wall to the cul-de-sac of Douglas, to within an inch of the os uteri and took out I think—well certainly one half and perhaps more of the circumference of the vagina. It left a great gap, a gap which I made no effort to close by bringing down the gut. The woman was in a desperate condition at the time I operated. This was a scirrhus growth of the parts with ulceration, in which there was there a discharge of matter into the rectum and vagina with a fistulous opening between the two, and the woman had been bedridden for a year; she was a deplorable object on account of the condition to which she was reduced in strength. She improved from the day of the operation; she was more comfortable than she had been for months; she suffered less during the time the wound was healing than she had for many months before. There was but little disturbance of the constitutional condition, but little re-action followed the operation and the parts healed kindly. That growth, however, returned; she lived I think a year, perhaps a year and three or four or six months after the operation. Now it is a question in this operation, just, as in many others that come to the surgeon whether it is justifiable. I think it is justifiable. It is certainly more proper to make operations on these cases than where we recognize the fact that the growth will probably recur. It is just as justifiable to make that operation with this end in view, to make the patient's condition more comfortable, as it is to give a dose of morphia to mitigate suffering. for a longer time during which recuperation of the strength of the patient may take place; patients improve almost certainly after the operation is made. I don't mean to say by that that the operation should be done in all cases, by no means. But the fear that the artificial outlet produces a great deal of trouble or great danger in connection with these operations is an erroneous one. Colotomy, if I understood the doctor in his paper, is stated to be an operation which should be resorted to only when the patient's condition was a desperate one; when the patient came to a time when he could not have an operation of the bowels without great pain and without great difficulty. That is the proper ground on which the propriety of colotomy should be based. It has been recommended repeatedly as an operation that would retard the advance of the disease, by removing the source of irritation to the part. I don't think the statistics prove this. Some of the most successful operators, some of those who have had the largest experience, say certainly, it will not do so; it produces in itself a condition which is most unpleasant, the fistulous opening in the side is a source of trouble and intense discomfort to the patient. The simple removing of the irritation caused by the passage of fecal matter over such a growth does not retard its growth. The operation I think as the doctor says should only be performed when the obstruction becomes very great. I think the majority of patients with cancer of the rectum die in two years, some of them live five. I saw not long ago, a young man nineteen or twenty years of age, who had cancer of the rectum; he had suffered from it for a year before I saw him. I saw him the second time in about six months and at that time I thought he would live perhaps four or six months longer. I have not heard from him since. I didn't think that was a fit case for operation; the disease was high up and the condition of the patient, was such that an operation was not advisable, nor did the patient desire the operation when I first saw him. The growth was situated I think fully six inches from the anus; I could feel it only when he was in a favorable position for it, when he was bearing down or soon after defecation and when he resumed the recumbent position.

Dr. Dean.—I have changed my mind a little within the past two years with reference to the advisability of the early operation of left lumbar colotomy. I am inclined to think that the statistics do not bear out the position that the growth of the tumor is so much hastened by the irritation of the matter passing over it; but rather the trouble

is in the tube above the growth. I do not think the point Dr. Prewitt made is sufficiently appreciated by many in the profession, that is that the irritation above the tumor—the breaking down that occurs above the tumor—is one of the greatest sources of danger. We may sometimes prolong the patient's life by measures such as have been suggested by Dr. Mudd. When Dr. Coles reported his case last year, I spoke of a patient of mine who utterly refused to have colotomy performed and I used the curette, and this man's life was saved some months. I advised the patient that consulted me yesterday that, so far as the tumor was concerned, he would better not think of à colotomy yet, but it might be necessary sooner on account of the breakig down and ulceration above the strictures.

Dr. Prewitt.—I think the discomforts consequent upon colotomy are exaggerated. The patients can wear a pad and thus very effectually control the bowels, and do not have as much discomfort and inconvenience as is generally supposed. It is recognized as a pathological law that stricture in a mucous canal presupposes ulceration above it. Now it seems to me that it is possible to anticipate that event; you certainly can prevent it by stopping the straining effort, and also the irritation which occurs above this stricture, by performing colotomy; and thus you certainly prolong the life of the patient; because we see these cases sometimes with the parts riddled with fistulæ and, in severe cases, perforation of the bowel. I operated on one case, several years ago, in an old lady who had had stricture of the bowel for four or five years; she suffered a great deal from distension and the peristaltic action of the bowels, and had a good deal of trouble to get the bowels to move, it being necessary to take laxatives to get the contents in a soluble condition. I operated in this case, and by the operation she was able to get up and be about for some little time with a great deal of comfort, but suddenly she was attacked with peritonitis and died. I made a post-mortem and found a perforation. I have the specimen showing the ulceration of the bowel about half an inch above the point of constriction into the peritoneum as the result of the ulceration. Now I am certain if patients were operated upon at the earliest period their lives may be much prolonged. I operated a few months ago upon an old woman 60 or 70 years of age where such a growth existed. I did not think it possible to do much without such a procedure, suffering as she did much from colicky pains and having hemorrhages from the rectum whenever the bowels moved; in fact hemorrhage occurred almost every night. I performed colotomy and the operation was a complete success so far as the colotomy was concerned. The healing took place and the bowels moved raadily from the artificial opening; but the hemorrhages continued and in the course of a few days she died from loss of blood. The operation of colotomy itself is not very dangerous; in fact it is almost always successful, unless some opening in the peritoneum is made,an accident by no means inevitable, which does sometimes occur. I once saw quite a prominent gentleman in the profession attempt to operate before the Surgical Association at Cincinnati; and when we opened the abdomen we found that he had perforated the peritoneum; but he was quite a distinguished man and quite a good operator, but he did make a hole in the peritoneum. But that generally can be obviated by simply inflating the bowel from below. I think the operation of colotomy itself, besides conferring great comfort,will retard the progress of the disease; if it does not in any other way, it does it by anticipating and preventing the ulceration which is certain to occur sooner or later, cutting short the life of the patient by causing sinuses and leading to perforation of the peritoneum, etc.

Dr. Mudd.—The pain and discomfort of a tumor is very largely determined by its situation; if it is high up in the rectum, the probabilities are that the pain will not compare with one coming down and involving the anus and tissue above the muco-anal junction. In reference to the ulceration which is stated to occur above the stricture, I do not know how often this complication may arise. I confess I have not seen it in the limited number of cases I have observed. I know it does occur, sometimes,but I think it would be preceded by symptoms that could be pretty clearly located and the condition determined. If that condition generally existed it is good reason for performing colotomy. But I have seen a great number of cases of stricture of the rectum and I have a specimen in my office now from a case which Dr. Prewitt perhaps will remember, a case that we saw together on Olive street two years ago in which the bowel was perfectly healthy above the point of stricture, and, also below there was no disturbance except simply at the point of stricture, and that was a very tight constriction. In other cases that I have seen of stricture of the bowel the upper surface has been healthy, and surgeons performing this operation, so far as I remember, have

not taken note of it. In speaking of it they say that it presented a healthy appearance, and the fact that so many of them bring the part down and unite it with the external bowel, tends to show that it must have been in a healthy condition. In the case which Dr. Coles reports, if the mucous membrane had been ulcerated above he would not have united the part with the skin, because he would have known that it would have separated very soon and the operation be of no avail. There is no question that this this accident or this condition does prevail here just as it does in the urethra, but it is of slow progress, and is of infrequent occurrence, I think.

[TO BE CONTINUED.]

CORRESPONDENCE.

MURIATE OF COCAINE.

Editors Review:—After the first publication in the journals on the anæsthetic properties of muriate of cocaine in ophthalmic surgery Dr. Tiffany and I made several experiments hypodermically to test its possible or probable efficiency as a general anæsthetic in minor or major surgery. As these experiments were original and probably the first that were made in this city; they may be of some interest for the readers of your journal.

On Nov. 19, we experimented on a guinea pig, and commencing with only one-half minim of a 2 per cent solution, found but little change in the sensibility of the pig; a repetition produced some dilatation of the pupil and some muscular exhilaration. Then we used 3 minims with some diminution of sensibility; in 20 minutes from the first injection we injected 5 minims more which produced complete loss of sensibility in three minutes. We could now pass the hypodermic needle through folds of skin, the ears, tongue, and foot without eliciting the least sign of pain, whereas before the last injection the pig would squeak piteously whenever the needle entered the skin. During the entire experiment there was apparently no loss of consciousness or loss of power of co-ordination. On Nov. 20, I tried it hypodermically on myself, some physicians and several patients, in doses of 2 to 12 minims of a 2 per cent solution with the following general results. With from 5 to 10 minims injected in the forearm there was almost immediately a production of prickling sensation, as of ants running over the skin, followed by numbness of the arm and complete anæsthesia within a space of one inch from the point of injection. There was slight hyperæmia and increase of the pulse rate, in myself from 68 to 84, then dropping to 76 and remaining so for sometime, a free respiration and feeling of buoyancy. It seems to possess a cumulative power, as two 5 minim doses produce a stronger and more lasting effect than one of 10 minims. I would judge it to be very useful in nerve surgery and operations on the nose, mouth, rectum, uterus and urethra. We tried it sufficiently on the eye here and Dr. Tiffany operated in my presence on a case of cataract by Von Grafe's extraction method with the happiest effect and has since used it extensively in other operations on the eye.

Yesterday I used it on the os uteri before introduction of tupelo tent. The lady had a very sensitive much contracted internal os, a small probe could only pass by the most careful manipulation and causing excessive pain. I applied a 4 per cent solution of cocaine with absorbent cotton wrapped around a probe, to the os, and in a few minutes had relaxation of the muscular fibres and the instrument passed easily and without pain to the fundus uteri. The tent of the size of a No. 6 bougie was easily introduced causing no sensation at all, although she knew what I was doing. I applied a little more cocaine to the cotton tampon and left her very comfortable. She felt some good effect, said she felt good all over, had some exhilaration, slight dilatation of the pupil, but no discomfort. Above case demonstrates its usefulness as an anæsthetic in uterine surgery, neuralgia and dysmenorrhœa. Respectfully,

E. VON QUAST, M. D.

Kansas City, Mo., Dec. 10, 1884.

—The well known Professor Jaeger, "discoverer of the soul" and advocate of the wearing of woolen clothing exclusively, has "discovered" that the homoeopathic attenuation of the human hair is a sovereign remedy for many ills that flesh is heir to and has applied for a patent, in Austria upon his "Haarduftkuegelchen," or "Hair-odor-granules." To the human female hair he assigns extraordinary powers. For instance, if it be administered in the form of granules with the food it will promote appetite and invigorate the system, etc. To the objection made by the press that the administration of such a remedy appears nauseous, the author replies: "The idea of disgust is removed by the high dilution. A whole hair in a plate of soup may be considered repulsive but no body will object to drink from the Lake of Constance if he knows that one hair has fallen into it; and this is about the dilution attained in the granules."

—The next International Hygienic Congress will be held at Vienna in 1886.

THE WEEKLY MEDICAL REVIEW.

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"ACTINOMYCOSIS" AT THE CHICAGO MEDICAL SOCIETY.—On the 15th inst at the Chicago Medical Society Dr. J. B. Murphy presented an interesting summary of the literature of actinomycosis and presented an account of two alleged cases under his own observation. When we contributed the article which appeared in the REVIEW of the 13th, we did not know that the subject was so soon to be brought before the profession, but the paper read does not practically modify the position then assumed. The disease was described as a fungoid growth capable of entering the organism through any abraded mucous surface, but showing a preference for carious teeth; the shortest time in which a person has succumbed to the disease after its discovery was given as seven months and the longest time twenty months. The schematic figures from Ponfick's article on the subject were exhibited. Twenty-eight tabulated cases of the affection occurring in Europe were refered to and the various seats of the affection, with the result of the course adopted, were given in summary. Dr. Murphy claims his two cases as the first recorded cases in American, and we think even in English literature. Consequently the profession has a right to expect that such a claim should be substantiated by the most indisputable evidence; and as it is claimed that the only unfailing means of diagnosis is the microscope the necessary care of specimens and othor corroborative circumstances should be scrupulously maintained. It is true the characteristic sulphur like granules almost as large as hempseed and greasy to the touch, which under the microscope revealed the radiation of threads with club-shaped ends, were observed by competent men such as Dr. Fenger, Belfield and Kerber, but equally competent men have previously been mistaken and will be again, and where it is a question of establishing a first case of an affection possessing such destructive properties as the actinomycetes are said to possess it is to be expected that any associated work would be detailed and demonstrations preserved with more than usual care. It is consequently due the profession that several points relating to the two cases claimed in Chicago should be brought into prominent relief.

In the first place, notwithstanding the fact that the only means of diagnosis is the microscope, yet the only specimen brought to the society for exhibition had spoiled, so that nothing whatever was to be seen. The only specimen exhibited was the one by Dr. Belfield, which was from a bovine case. Now it certainly does not add to the assurance of the case in question being one of genuine actinomycosis, when after an incision extending from the ear to the clavicle, parallel to the sterno-cleido-mastoid, and tissue removed with the knife and sharp spoon from a depth of three-fourths of an inch (such was the report) that not a single presentable specimen should have been exhibited. It was certainly very unsatisfactory to be merely shown the schematic plates of Ponfick.

In the next place a calf had been inoculated in the lower jaw with the fungus from the first case, but after a period of six weeks the calf was said to have been poisoned, whereas two months was said to have been necessary to have given the fungus time to have exhibited the success of the experiment. In any case it would have been satisfactory to have seen specimens from the seat of the inoculation even although its absence might not necessarily have proved or disproved anything. The facts associated with the in-

oculation of the calf were evoked by questions during the discussion.

Still, another circumstance is of special interest. Although it was recognized in both cases that the affection was in intimate relation to the teeth, yet in the treatment of the cases the teeth were not subjected to any special attention at the first operations, which consisted of lancing the abscess formed. In the second operation, however, upon the first case the radical operation was performed and the tooth extracted at the time, so that it is impossible to assign the relative value to be attributed to the different parts of the operation. Had the tooth been first extracted and the abscess given a fair show to get well this case would have been much stronger. The legitimate inference relative to the part which the extraction of the tooth may have played in the first case may be supposed from the history of the second case. The said second case, after the proposition was made of entering the hospital, fell into the hands of another physician, and with the mere extraction of the tooth, together with such slight attention any similar abscess would require got promptly well.

We have no other object in discussing the above subject than the general interest of the profession; and we think that, although the second case was not seen by all the gentlemen above mentioned, yet as it was claimed that the microscopical demonstration in a case of actinomycosis is so easily made that it is practically impossible to be mistaken, that one of two conclusions is justified, either the cases were not cases of actinomycosis at all, or that the affection is at times a very easily cured pathological condition.

The practical lesson of the discussion is that whenever an abscess occurs in the jaw which has originated with a diseased tooth, that the tooth should receive prompt attention, either in the way of treatment in the hands of a dentist or simple extraction; and in a possibly complicated case preference being given to extraction.

The Ignorance of the Italian Patient. —Every physician has occassionally to regret the ignorant obstinacy which he has at times to encounter, but it is a source of relief that we are in this country so much less afflicted than some of our European confreres. The London Standard correspondent thus describes the condition of things in Naples on the appearance of cholera:

"Sig. Matteo Schilizzi, a noble philanthropist, of whom humanity may be proud, was the first, accompanied by a physician, to enter the foul courts, called fondaci, in search of the sick. Money was the key to their doors, and with it he went largely provided. Every spoonful of medicine he gave the patient would only take after being bribed with five francs, and after the good man had first tasted it himself. A much larger sum had to be spent to persuade the patient to go to the hospital and to provide for his family during his absence, and thus thousands of francs were expended in one morning.

I was attracted to the Vico Violari one morning while visiting the quarter, by the frantic cries of a woman who rushed out of her room on the ground floor, calling out: "Don't speak to me of miracles! No miracles!" A crowd of neighbors instantly collected, and I learned that the poor woman had just lost a grown-up daughter by cholera. The people pushed into the room, full of curiosity, to see the corpse, while the mother continued to rave against the saints. I heard that the young woman had been ill for four days. She might have been saved if she had been taken to a hospital, but when I suggested this to a bystander he said: "If we must die, we must, either here or there. There is no help for us till the 19th, (the feast of San Genuaro). San Rocco has this time been powerless; only San Genuaro can do it." Just opposite the scene of mourning a man was seen in convulsions on his bed, some people watching anxiously at the door. They were waiting for the priest bringing the holy sacrament to the dying man. When the priest came in sight all the people, unmindful of the state of the road, knelt in the street, and with them the bereft mother. The room in which the man was

dying was fetid in the extreme, and so small that there was scarcely room for the officiating priest to perform his sacred rites. Nevertheless, boys and girls pushed in behind him, utterly without fear of infection. No doctor was to be seen. As I left the quarter of Pendino I met an omnibus converted into a funeral-car, full of empty coffins, a load of coffins with corpses being ready to be taken away in exchange.

As long as they continued the processions gave some animation to the streets, the young women, with their long, dishevelled and generally beautiful hair, looked highly picturesque, but their chanting of the rosary in nasal tones was very doleful. These processions were headed by rather suspicious looking youths, who solicited contributions from the passers-by or induced the people at the windows to throw down coppers. Bags-full and handkerchiefs-full were obtained in this way, but the objects on which the money was spent were not very clear. The revival of saints' pictures, long forgotten under the mortar of many houses, and particularly at street corners, formed for a day or two another source of movement and even disturbance. Large and eager crowds, chiefly women and children, watched for the reappearance of their favorite saints, and one could not behold their sincere joy and delight when at last the image appeared in wonderful preservation, without respect for their religious feeling. Lamps were immediately hung around and candles placed before such images, beneath which a small table was placed, upon which coppers were dropped to pay for oil and candles. At night loud and fervent prayers were repeated before such shrines. In such times of revived bigotry, it would fare ill with any one who should refuse to lift his hat in passing, nor was it wise to refuse a copper. The police, who sought to interfere with this illegal demonstration in the streets, did not move, although the cardinal was not in favor of the excitement; but the authorities were evidently determined not to embitter the temper of the already tried people.

The audacity of the women was wonderful. They were the ringleaders in the riots on account of the fumigation of the infant schools. They stood bravely against a squadron of cavalry the other day, when they prevented the carrying of stretchers through Chiaja, holding a big stone in one hand, and generally a baby on the other arm—perhaps their greatest safegaurd. On the evening when the fearful figures of nearly one thousand cases and three hundred deaths were published, a deep gloom extinguished the last signs life in the streets. Everything was abandoned. Most of the well-to-do fled to the suburbs. Lodgings on the hills of Posilipo and the Vomero were secured at exhorbitant prices, the bands ceased playing in the public gardens, and Naples lay for days under a deep cloud."

Further Experiences With Cocaine.—The Medical and Surgical Reporter calls attention to some recent experiences with cocaine. Dr. Felix Semon reports the following instructive case, Lancet, November 22, 1884:

"I have under my care at the present time a lady with the largest papillomata of the larynx I have ever seen in an adult. The prolonged interference with respiration has so lowered the patient's vitality, that on each of the seven occasions on which I have removed masses of the growth by forceps, the mere introduction of the instrument has caused alarming shock. Recently I painted the interior of her larynx with a 20 per cent. solution of muriate of cocaine once, and after waiting five minutes I was able to introduce the forceps four times and remove each time considerable portions of the tumors without the patient experiencing any pain at the moment or subsequent shock. She described the sensations caused by the cocaine as, first, a slight feeling of constriction, followed by a sensation of burning which quickly passed away."

In the N. Y. Med. Jour., December 6, 1884, Dr. F. N. Otis tells us that as the result of his own experience and that of others, he thinks that it will be proved that the greatest

good will come from the use of the cocaine in the cases of irritability of the deep urethra associated with prostatic disease. In these cases the passage of a catheter, so essential to the comfort and even the life of the patient, is frequently rendered painful, and not rarely impossible, by spasm of the deep urethra. The use of cocaine promises quickly to reduce both the pain and the spasm, and allow of the easy passage of the instrument, and, this, too, by a procedure quite within the province of an intelligent patient to use after proper instruction. A four per cent solution of the hydrochlorate of cocaine in almond-oil makes an excellent lubricant for urethral instruments, and he thinks it may prove even better than the watery solution for applications to the urethra.

And a correspondent of the New England Monthly contributes the following:

"I have used it in a case of painful menstruation with perfect success, where before I had to administer hypodermic injections of morphia. I wet a small piece of cotton with a few drops and introducing a Higbie speculum left it resting against the os. The result was all that could be desired. In about half an hour the pain ceased and did not return again, the menses appearing in three hours after the application was made."

And the editor's commentary is put in the following terms:

"We have had a similar experience with the drug in dysmenorrhea and the result was as gratifying as it was in Dr. Williams' case. Ours differed only in the mode of application. We applied a four per cent. solution directly to the os and about two inches around it with a camel's hair brush. We put on several coats and hastened the drying process by blowing into the vagina with an ordinary hand bellows. The pain shortly subsided and the menses appeared in about four hours.

Sulphide of Calcium to Prevent Suppuration in Small-pox and Chicken-pox.—Surgeon-Major C. J. Peters, of the British army in India (Indian Med. Gaz.), relates a number of cases in which he succeeded in preventing the suppuration of the cutaneous lesions, and therefore the secondary fever, of small-pox, some years ago, by the local use of a mixture of the pentasulphide and the hyposulphite of calcium (commonly called sulphide of calcium) prepared by boiling a quarter of a pound of quicklime and half a pound of sulphur in five imperial pints of water until the liquid was reduced to three pints in measurement, when it was filtered and kept in glass-stopperedbottles. If ordinary well or river water is used,a white precipitate is liable to form in three or four days, while the solution loses its color and is no longer efficacious; it should therefore be freshly prepared in quantities only sufficient for three or four days' use. It is applied to the affected parts two or three times a day, with a feather, taking care that none of it gets into the eyes. As a rule, the pocks thus treated did not suppurate, but withered in the course of three or four days. The author believes that the lotion acts by destroying the germs of the disease, preventing suppuration, and guarding against the complications that result from blood-poisoning. He would now combine its use with the internal employment of the drug.

Hemorrhagic Diathesis.—In view of the discussion of the above-named condition by the St. Louis Medical Society of late, the following experience of Dr. F. Forchheimer (Cincinnati Lancet and Clinic) is apropos:

"A boy, 11 years of age, presented all the usual symptoms of a bleeder. When 2 years old he cut his tongue, which bled for a week. When 3 years of age he was injured in the knee, and bled profusely, taking several months for recovery. After this he had several more attacks of violent hemorrhages following slight lacerations, amounting to about six in all. An examination of the body showed a scar on the forehead, a cicatrix on the tongue, several swellings, some as large as a goose-egg, on the shoulder and arm, left elbow, right buttock, ilium and knee, of a bluish or purple color. All other organs were normal. He complained of pain in the

joints, but was otherwise in good health. The doctor was careful to trace the family history, for Eichhorst doubts if these cases can be classed as such unless there be a family history of hemophilia; that is, the tendency to hemorrhage is inherited from the male members of a family, but transmitted by the females, or, in other words the father may be a bleeder, and the daughter, though not herself a bleeder, will transmit this diathesis to her male children. In the case in question, there was no history of hemophilia; neither the mother's father nor any of the mother's brothers showed this tendency to bleed, nor was there any other bleeder in the family, grandparents included. The mother had five children, but none of the others suffered in this way. This was a case of hemophilia in everything else except heredity. Hemophilia is a protean form of hereditary affections, yet this tendency to bleed habitually sometimes springs up without any antecedents. This boy showed no history of any infectious disease after which this habit might have been established. Nothing is known as to the cause of this affection; post-mortem examinations have not yet given any clue. Immermann conjectures that these individuals have more than the normal quantity of blood at birth,and are therefore apt to lose more. Acting on this suggestion, a sphygmographic examination was made, but nothing abnormal in the tracings, except a slight retardation of the pulse wave, was found. Consequently this theory was not sustained."

Operation of Cholecystotomy. — The first operation of cholecystotomy in Chicago was we think performed on Friday the nineteenth instant,at the Presbyterian Hospital,by Prof. C. T. Parkes. The patient, a woman of about thirty-five years, had been a severe sufferer for about two years, and to relieve the severe pain had partaken freely of the usual narcotics. Finding further endurance impossible, she resigned herself to the judgment of the staff of the Presbyterian Hospital. To share the responsibility and to secure the most complete investigation a general consultation of the staff was held. No special personal history was elicited. She had been married about eight years, but had not given birth to children. Her condition was somewhat icteric, but in other respects not worse than was to be expected from the prolonged suffering which had been endured. An enlargement was revealed in the region of the gall bladder, but its exact nature was very uncertain. The fact however, that the patient had passed gall stones put force to the supposition that the enlargement was impacted gall stones.

With the understanding that it might be nothing more than an exploratory incision, the operation was undertaken with the usual "antiseptic precautions" including even the spray. An incision four inches in length,parallel to the costal cartilages, over the seat of the tumor, about an inch and a half below the margin of the ribs was made. When it was decided that the chief difficulty was a distended gall bladder the wound was shortened by stitching up both extremities,and with the gall bladder well into the wound, it was pierced, emptied of its contents, and stitched to the remaining edges of the wounds. There were no gall stones found, but the bladder was widely distended with a clear mucus. The case was doing well the day following the operation, and we shall await with interest later announcements.

Laparotomy to Obviate the Inconvenience of Artificial Anus.—We have been privately informed that Dr. Sutton of Pittsburgh has of late undertaken the operation of laparotomy to overcome the inconvenience of a fistulous opening of the bowel of three years duration resulting from an operation for hernia. Dupuytren's operation had previously been performed without any satisfaction; on the contrary, rendered the operation still more difficult.

The incision was made in the midline and the bowel was found firmly adherent in two places to the region of the fistula and two resections had to be made. The part of the bowel which had lain quiescent was very

much diminished in calibre whilst the part above was widely distended, the difference in calibre was so great and the atrophic condition of the lower part of the bowel so marked, judging from the private report, that we should think the chances of a favorable issue would be very small. Finding the upper part of the bowel so widely distended and the work of resection so extensive, the doctor must have congratulated himself that he adopted the incision in the median line, as any enlargement of the original wound would necessarily have impeded his manipulation. We wish him success in his enterprise.

Cocaine an Aphrodisiac.—Dr. Freund is said to claim for the preparations of cocaine an aphrodisiac property. We trust this will not prove true, or the laryngologists and ophthalmologists will have to pay a high price for an article which has done them so great a service. If some sharp business man gets hold of this idea we shall certainly have a "corner" on coca leaves.

The laryngologists seem to be using a solution of the hydrochlorate of cocaine as strong as twenty per cent.

Bacteria in the Dairy.—In response to the vote of thanks tendered him for his lecture in the Health Exhibition of London, Mr. Earnest Hart said: "Sir John Lister had proved that the whole question of the souring of milk depended on the bacterium lactis, and that the butyric ferment was due to another kind of bacteria. The milk industry opened up a great field for investigations of this class; it was found that every variety of cheese was due to the influence of a particular kind of minute vegetable organism, which, by its mode of maturation, gave to each cheese its particular flavor and quality; so much so, that one kind of cheese could be made only in one cellar, and another kind in a cellar perhaps 300 yards off, and in none of the intervening cellars could the same a kind be made. The last time M. Pasteur was in England with him, he told him that his greatest desire would be, if he had some years to spare, to spend them in the laboratory of a dairy, working out the relation of germs to the milk and cheese industry."

Legal Decisions.—A dentist in San Francisco, who forcibly removed some fillings the payment for which was in dispute, was condemned by the courts to pay damages in the sum of $217.50. It has also been decided that a dentist cannot retain an unpaid-for set of teeth that may come into his hands again for alterations or repairs.—Ind. Pract.

Public Health.—The Committee on Federal Legislation, appointed by the National Conference of the State Boards of Health, to which Dr. Spiegelhalter, of the St. Louis Board of Health, was a delegate, has completed the bill upon which it was engaged, and which embodies the views of the conference as to the best method of preventing the introduction into the United States of cholera and other diseases dangerous to the public health. It is entitled "A bill to amend an act entitled an act to prevent the introduction of contagious and infectious diseases into the United States, and to establish a National Board of Health."

In regard to its provisions we learn from the Medical and Surgical Reporter as follows:

The first of the ten sections comprised in the bill provides for a National Board of Health, to consist of one member from every State Board now or hereafter to be established, to be appointed by the President and confirmed by the Senate. This differs from the original act in that it largely increases the membership of the board, and excludes from it the medical officers from the army, navy, and marine hospital service, and the law officer from the Department of Justice.

The second section of the new bill provides, as did the corresponding section of the original act, for the collection and dissemination of sanitary information, etc., but greatly enlarges the scope of the Board's powers by

authorizing it to frame rules and regulations for the government of the quarantine service of the United States, and by vesting in it (the Board) all authority which is now or may hereafter be provided by law for the control and protection of the public health. It directs the National Board to co-operate with local boards, as far as it lawfully may, and to aid in the enforcement of the latter's rules and regulations; but it also authorizes the National Board, upon direction of the President, to act in the several States independently, and to make and enforce their own rules, regardless of the local boards. The third section relates to the regulation of the marine quarantine service, and authorizes the National Board to frame rules to be observed by all vessels sailing from foreign ports to ports of the United States; and provides that such rules, when approved by the President and issued by the Department of State, shall be enforced by all consular officers and agents of the United States, as well as by medical officers serving under this act.

Section four provides that any vessel from any foreign port which shall attempt to enter any port of the United States in violation of the above-mentioned rules and regulations shall be liable to process in the proper District Court of the United States, and upon conviction shall forfeit to the United States a sum to be awarded in the discretion of the Court, not exceeding $1,000, which shall be a lien upon such vessel. In order to show that it has complied with these rules and regulations, every vessel shall be provided with a proper certificate from the United States consular or medical officer at the point of departure, who must be satisfied that the statements therein contained are true. Section fifth provides for a similar observance of these rules and a corresponding certificate from the health officer at the port of entry. Section sixth authorizes the President of the United States, in any threatening emergency, to make known by proclamation measures which he may think necessary to meet it, such as suspending the introduction by land or sea of any dangerous kind of merchandise, or prohibiting entry into United States ports of vessels from infected countries. He shall, at the same time, convene the National Board of Health in special session, and the measures devised by the latter shall, upon approval by the President, supersede the Executive proclamation.

The remaining four sections provide for the collection by consular officers of sanitary statistics and information in foreign ports; for the detail by the President of departmental officers to serve temporarily, under direction of the Board, without extra compensation; for an appropriation of $500,000 to meet the expenses incurred in carrying out the bill, such sum to be disbursed under the National Board's direction and by its own disbursing agents, and for the repeal of all acts inconsistent with the term of this one.

A delegation of physicians and members of State Boards of Health in attendance at the conference placed the bills in the hands of the House Committee on the public health on the 12th inst. Dr. Walcott, of Boston; Erastus Brooks, of New York; and Dr. McCormack, of Louisville, made short speeches before the Committee. They urged legislative action in the direction proposed by the bill, and said that the measure was approved by the Boards of Health of twenty-five States. Representative Beach, Chairman of the Committeee on Public Health, says that he regards the measure prepared by the conference as a most important one, and that his committee will give it consideration at an early date.

Salicin and Salicylates.—Dr. F. J. B. Quinlan speaking of the above substances thus expresses himself:

"From a very extensive experience, both of the natural alkaloid and of the artificial phenol derivative, it appears to me that there is no use in giving either in doses of 15 grains every third hour, and that the proper treatment of rheumatic fever is, having carefully noted the temperature, to begin boldly with from 30 to 50 grains of salicin, according to the severity of the symptoms, and to

twice renew this dose at hourly intervals. If, at the end of three hours, the temperature be found reduced by at least one degree Fahrenheit, the dose may be persevered in for three hours more, when reduction of from two to three degrees Fahrenheit will probably be found, with a corresponding improvement of symptoms.

If on the contrary, at the end of the third hour the temperature should be found unaltered, or even increased, an addition of 10 grains should be made, and persevered in for 2 hours,at the end of which another 10 grains should be added if necessary; and, unless in some very exceptional case, the struggle must and will end in the victory of the alkaloid, and that without the slightest unpleasant symptom. I have several times given 50 or even 60 grains every hour, but this is seldom necessary. When I began early last year with these heroic doses, it was suggested to me that there might be a risk; and I accordingly proceeded to test what was the largest dose that could be borne without inconvenience.

Catherine C., aged 42, an averagely strong adult, was convalescent from acute rheumatism. She was up every afternoon, and was taking 30 grains of salicin daily, to prevent the relapse which is liable to occur if the drug be abruptly abandoned. On March 14, of last year, I commenced a daily increase of five grains; and on March 24 she took an eighty-grain dose of salicin, and continued it four days without any apparent inconvenience. This experiment was interesting at the time; but I have since given healthy patients, who were not on a course of salicin, as much as 120 grains at a time, without any apparent result.

It has been asserted that cases of rheumatic fever treated by salicin, or by the salicylates, are more liable to cardiac metastatic troubles; but is entirely contrary to mv experience of 102 cases so treated, in which there were only five cardiac cases. One of these, Margaret D., aged 23, terminated fatally; but for this there were circumstances fully accounting. The other four made perfect recoveries; one of them, Henry McD., a cabdriver, aged 27, being of very great severity and persistency; and, in his case, it may be remarked that the salicin for the rheumatism and the grey powder for the endo- and peri-carditis, were given together. In any case in which there is the slightest want of tone or fullness in the systolic sound of the heart, I am in the habit of applying a large fly-blister over the whole cardiac region; and this I regard as a most important adjunct to treatment, and a prevention to cardiac complication. Salicin is best taken on the empty stomach; and the handiest mode of administering it is either a capsule or wafer-paper. Suspended in milk, it is easily swallowed. Dr. Maclagan has remarked its tonic after-effects during convalescence; and this I can fully confirm.

No practical physician will for a moment doubt the antipyretic powers of salicylic acid, or of its more handy and soluble sodium salt, in the treatment of acute rheumatism. To promptly master this disease, however, they must be given in hourly doses of from twenty to fifty grains; and I have seldom so employed them without producing nausea, vomiting, general depression, drumming of the ears, and, occasionally, temporary interference with sight or hearing. It is difficult to account physiologically for the marked difference in the clinical action of salicine and of the salicylates; and if we admit the hypothesis, generally received at present, that salicin is converted, in the system, into salicylic acid, the difficulty is proportionately increased. I see many objections to this view; and, without advancing any speculative opinion on an obscure point of therapeutic chemistry would suggest the consideration whether both salicin and the salicylate are not converted into salicyl. There is yet another possibility of accounting for the sickening and depressing effects occassionally produced by the salicylates, namely, that the acid made from carbolic acid is sometimes impure. Salicin, in latter years at least, is almost invariably a pure product. Reviewing the whole subject, I decidedly lean to the use of salicin in preference to any of the salicylates. It will do all that they can do; it

will do so more effectually, and without any ill effects; and lastly, the dose of salicin is practically unlimited."

Needless and Useless Coughing.—An exchange quotes the following from the British Medical Journal: There is in the world a great deal of what I am accustomed to call "needless, useless coughing." Where secretion takes place in the bronchial tubes, it must sooner or later be brought up; and for this purpose some "necessary" coughing must take place, or the patient will choke. But, both in organic diseases and in slight inflammatory or irritative affections of the air passages, there is often an immense amount of useless coughing,—useless, that is, as regards bringing up any laryngeal or bronchial secretion, and far worse than useless, because it wears out the patient, prevents sleep, and moreover, increases the condition which gives rise to it inasmuch as it lets the affected parts have no rest or peace. Now, the effects of opium are both local and general; and if in mucilage of acacia, or tragacanth, or in glycerine, or with a thickening solution of confection of dog-rose or honey, you give frequently from the one-fortieth to the one-twentieth of a grain of morphia, you not only give a marvelous amount of peace and comfort to your patient, but, where it is remediable, you tend also to cure the disease. A favorite formula of mine, varied according to circumstances, is:

℞ Acetate of morphine,	-	1½ grs.
Nitric Acid, dilute	-	1½ drs.
Oxymel of squill, -	-	6 "
Mucilage of acacia,	-	2½ oz.
Glycerine, - -	-	2 drs.
Syrup of red poppy,	-	2 oz.

Cinnamon or rose water sufficient to make the whole equal six ounces.

M. To take one or two teaspoonfuls five, six or seven times in the twenty-four hours.

The coughing in pertussis may be similarly relieved.

Cremation.—We learn that there is a scheme on foot to provide St. Louis with a crematorium. The idea is still in incubation. But it seems that the correct one is being evolved, namely that of going to work at once and getting the money before perfecting an elaborate and cumbrous organization. The manner of procedure followed by the Society in Lancaster, Pa., is a good example. The following particulars reported in the Medical and Surgical Reporter may help the St. Louis project along, and prove interesting to those engaged in it.

"The second crematorium completed in the United States was dedicated at Lancaster, Pennsylvania, on Tuesday, November 25, at 2 P. M., when the body of a lady from Jersey City, N. J., was incinerated. The building occupies a commanding position on the west bank of the Conestoga, in the immediate vicinity of the largest cemetery in the city. It is in the Gothic style of architecture, 30x48 feet in its ground plan, and is divided into audience, furnace, and reception rooms. Over the main entrance to the building is the single word "Crematorium" in very prominent Old English Text; the most appropriate name that we have yet seen used in this connection. There will be two retorts, one of which has already been used, the largest yet constructed for this purpose—entirely original in the design of its heating apparatus.

The Society was organized May 27, 1884, and has purchased land, erected its building, and had its first cremation within the period of six months, while none of several other societies thus far organized have as yet advanced beyond laying the corner-stones of their respective buildings. The subject-matter of the addresses made on this occasion gives evidence that those who are directing attention to this coming mode of disposing of the dead are thinking men, who know how to present their case, Cremation vs. Inhumation.

The instructions issued by the Lancaster Crematorium are as follows:

"1. Application. All applicants for cremation of bodies must present a certificate of death, signed by the physician attending during the last illness, whose standing as a rep-

utable practitioner must be attested by a magistrate or notary public. A blank for this purpose will be furnished by us; but in lieu of this, the certificate of the health officers of cities, in legal form, will be accepted.

"2. Preparation of Body. The body should be dressed in a shroud of cotton or linen fabric, being particular to avoid all metallic substances—hooks, buttons with metallic eyes, etc.

"3. Coffin. The body should be enclosed in a plain wooden coffin, or what is preferable, in a coffin made of sheet zinc; being particular to make the coffin no larger than is needed to contain the body.

"4. Shipment of Body. To avoid unnecessary expense, when accompanied by friends,a passenger ticket should be purchased for the body, which is then shipped as baggage, not by express.

"5. Religious Services. When religious services at the time of cremation are desired, we will arrange for them with some of our city pastors, if timely notice is given.

"6. Cost. The cost of incineration is $25. The additional expense of conveying the body from the depot to the Crematorium, services of undertaker, one coach for friends accompanying the body, and a plain receptacle for the ashes, will aggregate $10. This amount ($35) must be received by us in current funds, postal order, or certified check,before the body is cremated. A hearse will be furnished when desired, at $5, and additional carriages at $3 each. Urns to receive the ashes will also be furnished when desired as soon as arrangements now in progress are completed."

The officers of the Society are D. G. Eshleman, Esq., President; Rev. J. Max Hark, Henry Carpenter, M. D., Vice Presidents; H. C. Brubaker, Esq., Corresponding Secretary; J. D. Pyott, clerk; Geo. K. Reed, Treasurer. M. L. Davis, M. D., J. D. Pyott, H. C. Brubaker, Esq., Executive Committee.

—Simple vinegar, about two ounces for an adult,is recommended for the "bowel complaint." It should be taken without admixture of water.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICAL SOCIETY.

REPORTED FOR THE REVIEW.

(CONTINUED.

Dr. A. Green.—I would like to ask Dr. Mulhall in reference to the appearance which the larynx presented in Dr. Wright's case, if the epiglottic fold or the retro-pharyngeal glands were enlarged or if anything was to be seen there? The reason I ask this question is, that it is very interesting to note that there should be tuberculosis of the larynx before any of the other organs were affected, especially the lungs. If by the strictest examination we fail to discover any pathological condition of the lungs at all, and we can perceive that the retro-pharyngeal glands are enlarged and the tuberculosis originates in the pharynx, and as we know that tuberculosis is an infectious disease, arising from a cause which is known—the bacilli of tuberculosis, I would like to inquire whether we might not apply local remedies to the part and thus effect a cure.

Dr. Mulhall.—Dr. Wright's larynx, as far as I remember, first presented the pallor that all mucous membranes of the upper respiratory tract present in cases of tuberculosis; there was pallor of the palate and of the pharyngeal structures, intense pallor; there was also in the intra-arachnoid fold an ulcer which gave rise to a most teasing and painful cough; a cough which was accompanied by no sputa; there was no œdema whatever of the laryngeal structures or tubercular infiltration, as we usually find. It is undoubtedly true that tuberculosis sometimes affects the larynx first, though I think it is very rare. In Dr. Wright's case I dont't think that any local treatment would have had any effect upon the disease. I do not believe that a case of laryngeal tuberculosis can be cured by that method. In the first place it is very difficult to keep the remedy on the larynx long enough to do any particular good in a case of this kind. The usual treatment recommended in the case of laryngeal tuberculosis is to first wash the larynx, to clear off the accumulated secretions and then fill it full of iodoform, or give a continuous inhalation of some antiseptic. We know that the tubercular bacillus is the most difficult to destroy of all, and I think it would be impossible to destroy the tuberculosis without destroying the larynx.

Dr. Rumbold.–Did Dr. Wright not have the

sharp peculiar cough before the occurrence of the ulceration of the aryteno-epiglottic fold.

Dr. Mulhall.—It was the intra-arachnoid fold just below the glottis which was affected and I do not know whether he had the cough previous to the presence of the ulceration or not.

Dr. Hurt.—Six or eight months ago I had a case of tubercular laryngitis. My patient was seven months advanced in pregnancy. I do not think there is any doubt about this being tubercular as she was treated by others before I saw her on the same theory. The patient survived long enough to give birth to her child and began to recuperate so far as the condition of her voice and deglutition were concerned; but two months after confinement she died of tubercular phthisis.

Dr. Rumbold.—The reason why I asked Dr. Mulhall the question was beacuse I treated Dr. Wright for a long time, probably for two years, and he had the cough before he had the ulceration, certainly for ten to twelve months; and I think that whatever ulceration was present it had supervened subsequent to the beginning of the cough. This may have been the result of tubercular infiltration of the larynx, but I never detected tubercular infiltration, and his lungs, when I saw him last, were perfectly clear.

Stated Meeting, December 13, 1884.

Dr. Hulbert.—Mr. President, I beg to present this heart and uterus taken from the body of a patient that came to the Female Hospital a short time ago. At the time of her entrance I was unable to make a satisfactory diagnosis. She was apparently insane; was rather weak, not able to sit up, and in a state of considerable agitation. She told me that she had had a miscarriage and inflammation of the bowels and several other things, but of which I found no evidences at all. On examining her I thought I noticed a weakened heart sound, as if it were caused by pericardial effusion. The heart's impulse was not at all strong. On the following morning in making my rounds through the hospital I found her in a semi-comatose state, and throwing herself about the bed, taking deep and rapid inspirations and then stopping for awhile; she died before I left the ward. There was very slight cyanosis, and some sibilant rales in the lungs. On post-mortem examination the heart was found enormously distended, in fact I have never seen one larger; it was fully as large again as it is now in its distended state. The most peculiar feature about the examination was that on making the first incision in the abdomen and chest in the median line, a great amount of blood oozed from the vessels, and this continued during the post-mortem. Wherever we cut there was a gush of blood; and on raising the sternum I found the lungs almost bloodless; and occupying only about one-half the thoracic cavity. The heart was so much distended that it filled the entire pericardial sac; and this distension seemed to be due to the damming of all the blood in the body back into the venous system of circulation. In conjunction with this condition I found in the pelvic cavity the right lateral ligament somewhat ecchymosed; it is now very much shriveled. The uterus gave no indications of her having been unwell at that time; and I am at a loss to determine to what cause to attribute the condition unless to mechanical pressure and the rupture of one of the veins in the broad ligament. The case was interesting to me on account of the lung condition more than anything else. I could not satisfactorily account for the condition of the lungs, as they filled only about one-half of the thoracic cavity. The lungs were not collapsed; containing plenty of air but no blood.

This specimen is from a case of chronic opium poisoning that died from persistent diarrhea; the patient died in a state of collapse. The kidneys are atrophied and fissured, having a very peculiar look such an one as I have never seen before; and also a peculiar shape. Here is a part of the mesentery, of which the glands are enlarged. And here also is a part of the ileum taken from near the ileo-cecal valve and higher up. These were the only parts of the body, with the exception of the base of the right lung, in which there was a hypostatic congestion. Here is a piece of the intestine almost in a grangrenous condition. Here is also a portion of a fibroid tumor taken from the anterior part of the cervix of the uterus. The location of this at this part of the organ is rare. The pedicle of this tumor was about an inch long and intimately connected with the anterior part of the cervix. I removed the tumor making a v-shaped ex-section in order to bring the cervix into the proper condition. The patient is still alive.

Dr. Dean.—From the specimen and data given, Mr. President, I do not think we could give the cause of this venous congestion. With reference to the kidney, the only peculiarity I think, is its lobular appearance like fetal kidneys. The embryological or fetal condition in man is permanent in many of the lower animals.

Dr. Mulhall.—I fail to appreciate any-

thing wrong with the heart at all. I think that is a perfectly normal heart; I see no evidence of dilatation of one ventricle or the hypertrophy of the other; nor evidence of stenosis. I think if Dr. Hulbert had had time to make a more complete post-mortem examination he would probably have found some other organ extensively diseased, and most likely the patient came to the hospital in a failing condition; was she not very well when she came to the hospital, doctor?

Dr. Hulbert.—No, she seemed to be crazy; was able to sit up in bed and went up stairs with the assistance of one nurse; and seemed to be better until a short time, perhaps two hours, before her death.

Dr. Mulhall.—Dilatation and hypertrophy of the heart present after death unmistakable evidences of their presence. I see no evidences of them in this specimen. The doctor very possibly found the right heart full of blood but that might occur without there being any disease. Did you open the pulmonary artery higher up?

Dr. Hulbert.—I went to the bifurcation of the pulmonary artery, but did not follow it entirely into the lungs.

Dr. Mulhall.—I don't see any evidence of an adequate cause that should produce this condition-

Dr. Hulbert.—That was my impression, I think it was not diseased except in respect to its size; it was excessively enlarged. I failed to find stenosis, or disease of the valves or anything else, and the thickening of the walls of the heart seemed to be commensurate with the size of it. I regret I didn't follow the pulmonary artery into the lungs further than I did. There seemed to be a general dilatation both of the inferior and superior vena cava, both were very large; the pulmonary artery and the aorta were also large. The heart was enormousiy distended. In regard to this oozing to which I before alluded, it was not ordinary venous oozing that we have generally in post-mortems, but the blood ran out in streams, and yet there was only a slight amount of cyanosis, the ends of the fingers were slightly cyanosed,also the skin about the neck and the lips, but you wouldn't call it a marked cyanosis, but of this there was none at the time of her admission. The post-mortem was made about six hours after death.

Dr. Hurt.—The question with me, Mr. President, is whether or not this couldn't be most correctly accounted for on the theory that it was paralysis of the heart, and perhaps associated with some trouble going on in the nerve centres, the brain or spinal cord. It appears she was as much diseased in her mind as she was in her heart; probably the blood by further process of contraction of tissues had gone into the right heart and filled it up, but there may have been no power in the heart to contract and hence the anemia of the lungs. I don't know that I am correct in assuming that that was the case, because we had no post-mortem of the nervous system; and perhaps if there had been, and no possible trouble was found in it, it would not preclude positively the idea that there might have been paralysis.

Dr. Dean.—I would like to ask the doctor if he examined the coronary arteries of the heart?

Dr. Hulbert.—Nothing more than the openings which were very distinctly seen in the aorta; there didn't seem to be any atheroma; there was no embolus to be seen, no coagula in any part of the heart, except the blood recently clotted. My idea in regard to the fibroid of the anterior lip of the uterus is, that it was originally cervical tissue,and simply by the force of gravity and its own growth it found its way down the anterior vaginal wall, became invested with the vaginal mucous membrane and eventually prolapsed through the vulva by the process of sloughing; the discharge from it was very profuse. I think eventually it would have healed of itself and that there would have been no necessity for an operation. I operated because the patient requested it and I desired to hasten the removal. When I first saw the patient at an earlier period the tumor was twice its present size. She then came to the hospital and wished the tumor removed, but I told her that the hospital was not in a desirable sanitary condition at the time, and told her to come back again in about two months; she returned and the tumor was removed.

Dr. Schenck.—I was not here at the time Dr. Hulbert reported this case, therefore I know very little about the change in size. These fibroid growths of the cervix are more likely to be spongy than those which grow from the fundus of the womb and in other places; their nutrition is different and they are surrounded by muscular tissue in a different state. The doctor knows very well that they are very difficult to handle on account of their attachment. Indeed there is nothing more unpleasant in the removal of a fibroid growth than those which occur at the cervix, particularly if it is a spongy fibroid. I think the doctor is mistaken in reference to its being reduced so rapidly in size. This may have been more apparent than real. I doubt

also whether it would have entirely passed away; though it has been recommended in the treatment of some fibroids of the cervix, that a strong application of acids be made in order to produce induration of the tissues around them so as to effect their destruction by cutting off their supply, but this is very difficult to do. I have done it in very small fibroids but have never seen it successful in fibroid growths larger than the end of my little finger. I think this was probably attached up to the cervix and it came down as we frequently see them and ran along under the submucous tissue; we know is has a tendency by its own gravity to become pedunculated; a pedicle is formed and this tissue of the pedicle is the source of supply to the tumor and this seldom breaks away entirely. I don't think nature would have relieved this, because the pedicles would have remained. These pedicles grow very much as they grow canes in India by tying to the end of a twig a weight, and, it grows only with reference to its length and not in width; the weight of the fibroid drives it down and forms the pedicle. About a year ago I saw a case similar to this except that it was attached to the posterior cervix,and it had come down in the space between the rectum and vagina and protruded entirely; it looked very much larger than it really was; at the time we removed it, we found it had a distinct pedicle. This was a case which occurred in Dr. Maughs' practice and I had the pleasure of assisting in its removal. The pedicle was very large and filled the entire length of the posterior wall of the vagina and ran up the anterior portion of the womb. Tumors that are soft and remain in the cervix are very difficult of removal. About eight months ago I had a case near Taylorwick in which I had to remove such a tumor piece by piece. As long as we leave any of the substance behind except the pedicular portion,there being what is called a tumor vice, there is present a dispotion to a return of the tumor. The portion of the pedicle which is left retracts after awhile and you will have no return of the fibroid growth.

* * *

Dr. Mulhall.—I have an interesting clinical case to present, This patient is a gentleman who is a second year student of the St. Louis Medical College. He came to me about ten days ago for ordinary chronic catarrhal inflammation of the naso-pharynx. When examining his nasal condition he opened his mouth, I heard a very odd sound, a to-and-fro friction sound. I then asked him if he had observed that himself. He said, "Oh yes; I have been hearing it for seven years. I was greatly puzzled about determining the source of the sound. It presents I think some very remarkable characteristics, inasmuch as it is a double sound synchronous with the heart's action, and yet when he ceases breathing the sound also ceases. The sound is best heard at his mouth when he opens it; it can also be traced down to the trachea; but when you get below the level of the top of the sternum you no longer hear the sound. Now I think it a rather remarkable circumstance that he has a double sound synchrous with the heart's action which is not at all heard over the heart and which ceases with the respiration. His pulmonary condition,I consider is perfect, but I think there is possibly a hypertrophy of the left ventricle of the heart, inasmuch as the impulseof the heart is booming, heavy, strong, powerful, and the sounds of the heart partake of the same nature. But here is an anomaly, the heart's beat is on a level with the nipple and about half an inch inside the sternum on the left side. If it were a case of hypertrophy of the heart or of the ventricle we would naturally expect the apex beat would be felt at a point lower than normal. The sound can be heard in a quiet room at a distance of four feet. I examined all the respiratory organs and the Eustachian tubes which are very easily and plainly seen, and I can see perhaps the fifth ring of the trachea, and the condition is normal in every way. I came to the conclusion that inasmuch as this very curious sound stopped when he ceases to breathe there must be an element which entered into its production involving both the circulatory and respiratory organs, inasmuch as both contribute to its formation. I cannot conceive the exact condition which may contribute to produce it, but it is most likely a friction between the respiratory and the circulatory organs, perhaps the aorta and pleura of the left side, where they are closest together. I cannot conceive that the larynx itself would give rise to this condition, because during ordinary respiration the larynx is immovable or moves very little. I can take hold of the larynx and fix it firmly but still the sound goes on.

Dr. Dean.—Inasmuch as the double sounds are synchronous with the action of the heart and cannot be heard at the heart, and are, objectively, heard near the larynx, and as the patient subjectively locates the sound near the larynx, and the sound ceases when the patient stops breathing, the suggestion would be that the sounds are contact or conducted sounds produced

duringt he action of the heart and probably by the change of location of the respiratory tube. We know that the larynx and hyoid bone may grate against the transverse processes of the cervical vertebræ, and the former in many cases in old people produces sounds of that kind; and even in young people where there is a dislocation of vertebræ or injury of the larynx. I noticed that the sound ceased, when I grasped the larynx and hyoid bone and pulled them to the right, for I could not hear the sound nor could the patient hear it. I would suggest to the doctor that he may find the cause of the sounds to be connected with the position of the larynx and trachea; the posterior portion of the larynx may grate or rub against the cervical vertebræ. When he stops breathing the position is changed enough so that that grating ceases.

Dr. Mulhall.—I think the doctor will find the sounds are just the same even though he changes the position of those parts.

Dr. Dean.—(After examining patient). I can make the sound stop entirely, doctor; I think the sound is due to the position of the larynx and hyoid bone, one or both; probably the larynx.

Dr. Mulhall.—(After examining patient) I think the doctor is right, but it will require further observation to corroborate it; it must be from the friction—relaxation and dilatation of the superior thyroid artery and the internal carotid against the hyoid bone. I tried all those experiments before holding the hyoid bone in all positions but I did not succeed in stopping the sound. I would like to hear Dr. Dean's explanation?

Dr. Dean.—I could not state exactly what it is; I think, however, it is due to the relative posisions of the cervical vertebræ due, perhaps, to the conformation of his neck which is small. I think that they crepitate at each pulsation of the heart which changes the position of the larynx and causes the sound, and when he stops breathing of course the relations of the parts—that is of the hyoid bone and larynx—to the cervical vertebræ are changed.

Dr. Mulhall.—How?

Dr. Dean.—Well, it may be that each pulsation of the heart drives these parts together or separates them; as soon as he stops breathing the position of the trachea is changed and its relation to the cervical vertebræ; they are normally very near together.

Dr. Mulhall.—The hyoid bone does not necessarily move during respiration.

Dr. Dean.—Not necessarily; but when the breath is held the larynx is held and probably aloof from the cervical vertebræ.

Dr. Hurt.—Are these sounds only heard when he breathes through the mouth, or can they be heard when he breathes through the nose?

Dr. Mulhall.—Yes, sir.

Dr. Dean.—These bones and cartilages are not bare of course, and the crepitus is not produced by the rubbing of the bare bones together, but by the contact of the moist mucous membranes.

Dr. Mulhall.—You consider it the friction of the hyoid bone upon the vertebra; is not that hard to conceive when there are two layers of mucous membrane between?

Dr. Dean.—Crepitus of the larynx and cervical vertebræ is of frequent occurrence in old people and also in injuries of the larynx or of the spine. I think the doctor's theories with reference to the connection between the respiration and circulation is probably the correct one, but that the crepitus is caused by the larynx contact—a crepitus of the mucous membranes.

* * *

Dr. Williams.—Several years ago I reported a case of embolism of the central artery of the retina. Last Sunday week I had an opportunity of examining another case of like character. A lady about 35 years old, who has been married but is now a widow, had suffered with rheumatism for some considerable time, though sometimes free from it. At the time referred to she had been out walking, and on coming into the house she noticed, as soon as she got inside the front door and shut it, that she could not see with the right eye; was totally blind, as she expressed it. She went up stairs and kept testing the blind eye and found it was permanently blind and remained so from that time on. Last Sunday week she came to my office and wanted to know what the trouble was. I examined the bottom of the eye and found the characteristic evidences of embolism of the central artery, and these evidences are as represented here. The central part of the retina becomes of a deep white color. This white appearance involves the whole central portion of the retina in the region of the macula lutea. There is a characteristic appearance in embolism of the central artery, the macula lutea instead of having the usual red appearanca of the retina in health, assumes a deep red, a deep cherry red. The redness of the macula lutea in these cases is due to the contrast of the white portions surrounding it. It is well known that in embolism of the central artery the blood is cut off from the central portion of the retina; conse-

quently the retina assumes this decidedly white appearance; and the reason why the macula lutea does not assume this same white appearance is this: in a physiological condition the macula lutea contains no blood, it is the retina that covers the macula lutea, consequently its red appearance as seen in health is due to the blood in the choroid behind the macula lutea. Now when the blood is cut off from the retina the surrounding parts become white,but the macula lutea takes on this deep cherry red color; the white surrounding the retina occasions such a contrast as to make the macula lutea appear as if it were red, but in reality it is its natural red appearance. Now this condition was so well marked in this lady, that, although I did not see her for six days after the embolism occurred, this condition still continued. This characteristic white appearance of the retina and this cherry red appearance of the macula lutea are conditions pathognomonic of embolism of the central artery; these phenomena never occur in any other condition of the eye; therefore their presence is positive evidence that embolism of the central artery has occurred. This lady is totally blind except at a single point far on the periphery, where she can see a little; but the whole central portion of it is blind. I report this case because of the rarity of these cases. This is the second case that I have ever seen, the one I presented to this Society some years ago, being the first. In cases of embolism of the central artery the papilla is normal in appearance. The larger bloodvessels of the retina are unusually small, as though the current of blood had been extracted or removed, and although red they were thread-like. So far as the treatment is concerned you readily understand that absolutely nothing can be done; it is a hopeless thing from the beginning and it is only in a diagnostic sense, our ability to diagnose this condition, that is interesting.

The cause of the embolism, I presume, was from a fibrinous deposit becoming detached from somewhere about the heart. I never seen or heard of an embolus becoming absorbed. I reported a case about a year ago; that patient has remained blind and undergone complete white atrophy and the early characteristic appearances have disappeared entirely. It has now about the normal red appearance so that a person could not make a diagnosis of embolism in that case. You will remember that the field of vision in this patient was entirely blind except at one little spot, and this spot corresponded to a square segment of the retina as represented here. At this one little point of the retina, vision was perfect. The point in the macula where vision was possible was extremely small; but if he were to direct his vision far off, a square or two away, he could see an object as large as a horse and wagon, but close to him the field of vision was not more than an inch in diameter. This seeing spot in his eye is still intact, that is he sees as well as he ever did with this single spot. The reason why he sees with this single spot in the retina is on the supposition that the blood furnished to that portion does not come from the central artery, but from the sheath of the optic nerve or from the adjacent sclerotic; the embolism of the central artery therefore does not affect the circulation in that particular portion of the retina; consequently being still intact,the faculty of vision is retained. He told me a few weeks ago he could see as well with that part of the retina as he ever did. This is an interesting fact and that is the explanation of it.

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Dr. Mulhall.—I wish to report a little of my experience with the use of cocaine and galvano caustic in operations for some diseases of the nose and in some other cases. I have had four of these cases and the pain has been very much mitigated, so much so that the patient said they didn't mind how much it burned them. In three cases there was no pain whatsoever. The physiological action of the muriate of cocaine is quite superficial and so is the application of the galvano-caustic. I had two cases of acute cold in the head and performed that experiment with muriate of cocaine with the same extraodinary result that Dr. Pollak mentioned in some affections of the eye. In the space of ten seconds the swollen nasal tissue was reduced to far below their normal size, so that the nasal respiration was perfect and absolutely free. There was not a particle of pain about the application to the erectile tissue of the inferior turbinated bones of the nose in spite of the distension and nervous irritation which is the result of long continued chronic inflammation. The use of the muriate of cocaine has no effect on such thickening, but in a case of ordinary cold of the head where the distension is of nervous origin it disappeared very quickly. The erectile spaces are not infiltrated, and in such cases the muriate of cocaine produces its specific effects immediately, reducing the part to far below its normal condition. I have also applied it in two cases of laryngeal tuberculosis; in one, using a one per cent solution, was not very effectual except for the time being; but in the other

case I used a four per cent solution, after which swallowing was accomplished without the least pain whatever. Another curious fact which is of physiological interest in this connection: A physican in Philadelphia found that by using a four per cent solution to the larynx, although the patient was able to bear the contact of the probe, yet the ordinary reflex excito-motor action took place just as if no cocaine had been used at all. So far as performing operations of any considerable magnitude upon the larynx is concerned, it renders no assistance, because the muscular reflex excitability remains as before, but the ordinary tactile sensation is destroyed. This is very curious.

Dr. Moore.—How did you apply it?

Dr. Mulhall.—On the end of a probe with a little absorbent cotton. Dr. Bosworth explains the extraordinary action on the erectile spaces. He states it has no action on the capillaries whatever. In these cases of tubercular laryngitis we very frequently find small dilated veins; and Dr. Bosworth found that the appilcation of the muriate of cocaine produced no effect. He states he has noticed this extraordinary action on the tissues of the inferior and middle turbinated bones and that it is due to the action of the muscular elements there.

Dr. Dean.—I have seen the experience of somebody I think stated in the Journal of the American Medical Association this week that some physician had treated asthma nervosum, using the galvano-cautery upon the turbinated bone with this remedy and succeeded perfectly, although he had been unable to efficiently use the cautery before, and we know that this is as painful and sensitive as any diseased part of the human anatomy.

Dr. Pollak.—I have had several cases since reporting those which I did some weeks ago. I have had two cases of obstruction of the lachrymal duct where I had to split up the canaliculi and probe the lachrymal canal, both occurring in children; they did not offer the least resistance after the cocaine had been applied. I should like to ask Dr. Mulhall whether he does not think it would be a good remedy to use in the treatment of hay fever?

Dr. Mulhall.—I am sure it is the best remedy which could be used. Dr. Bosworth states that he had two cases of autumn hay fever in which the symptoms were entirely removed; of course this is not so severe as the ordinary hay fever. We specialists are apt to believe that hay fever has its origin in the nose entirely and acting on the theory the treatment is the galvano-caustic treatment. It has been found in hay fever, that there are certain excessively sensitive areas in the nose, so much so that the application of the probe to one of these produces a mimic attack of hay fever. The object is to destroy the sensitiveness of this surface; so that when the particles of pollen are inhaled and come in contact with it the reflex disturbance no longer takes place. I think it is reasonable to argue that the application of the muriate of cocaine in these intensely hyperesthetic spaces will produce these greatly desired effects, and will render the presence of particles of pollen no longer capable of producing reflex action. But I apprehend that after four, five or six applications these spaces will acquire a tolerance, and the remdy, therefore, will lose its power.

Dr. Williams.—I have also had some experience with the use of cocaine this week. I operated in a case of senile cataract under the influence of this remedy; the old man was very much concerned about the suffering but I told him the operation wouldn't hurt much. I applied the remedy three times before operating; first I instilled two or three drops and waited five or six minutes, then put in a couple of drops more, letting the patient lie on his back so as to retain the fluid in the conjunctival sac; a few momeuts after the second application, the third application was made in the same way, and then I went on with the operation immediately. I finished the operation; the old gentleman behaved very nicely. After I was through and had removed the speculum he asked me when I was going to make the operation. I told him that the operation was already over and he expressed great surprise; he thought I was only getting ready for the operation, and was much gratified when he learned that the operation was finished. He said he felt it some but had no considerable pain. I excised a portion of the iris operating by Graef's method and when I pinched the conjunctiva with the forceps the patient didn't give any evidence of pain at all; when I pinched the iris he didn't flinch at all, so that I am satisfied he didn't feel either of these pinchings, and you all know that have had any experience, that pinching of the conjunctiva and particularly pinching of the iris is the most painful things in the operation and patients nearly always flinch. One important peculiarity in regard to the use of this remedy in such operation is, that it not only takes away the sensibility of the parts, but it prevents the patient from squeezing or pressing his lids forcibly together and bringing his lids down on the eyeball which is one of the most dangerous incidents

so far as the operation is concerned, because in this way the vitreous body is nearly always lost. In this case there was not a particle of squeezing, but he allowed his eye to remain open all the time.

Dr. Schenck.—Last Thursday at my clinic I used a four per cent solution of cocaine in removing a urethral tumor; it didn't alleviate the pain at all and I had to take it away by force. The urethra as you know is very sensitive and irritable. But there was one peculiarity of its action that was noticed by my assistants who called my attention to it. In using the solution, some of it ran down along the margin of the ostium and vulva, and immediately there was observed a very marked ejaculation of the glands, so much so that you could see the fluid jetting out. How to account for it I don't know, unless it relaxed the mouths of these ducts. We applied the remedy through a dropper immediately to the urethra on each side of the growth.

Dr. Pollak.—Dr. Knapp, of New York, applied it to the urethra by using a probe wrapped with absorbent cotton well saturated; he used it with perfect success. Of course when the remedy is dropped in, it would be very rapidly diffused.

Dr. Schenck.—The end of the dropper was passed into the urethra and the fluid dropped right at the edge of the tumor; still by some other mode of applying it, it may be more effectual.

Dr. Atwood.—It may be that the preparation which Dr. Schenck used was of an inferior quality. I would ask the doctor if he had used this in any other operation?

Dr. Schenck.—No, sir. I used a four per cent solution.

Dr. Atwood.—I have had an opportunity of using the hydro-chlorate of cocaine in a case of acute coryza. A gentleman, a prominent railroad man, came to my office presenting the usual symptoms of cold; it occurred to me that it might be well to use a four per cent solution of cocaine. With a camel's hair pencil I painted the mucous membrane of the nostrils freely, and asked him to remain seated for half an hour; he said he would. We conversed during that time after which I asked him how his nose felt; he said it was perfectly well; the nasal secretion had altogether ceased. He told me that the day before he had used eight handkerchiefs in blowing his nose, and during that morning he had been busy doing the same thing. The application of the hydrochlorate of cocaine entirely arrested the secretion. He remained in my office half an hour, this was six o'clock in the morning, and he promised to return at six o'clock in the evening, which he did and there had been no return of the symptoms at all. One application seemed to have cured him.

Dr. Mulhall.—Dr. Bosworth states that in his cases of acute coryza the effect had lasted for twelve hours and that they returned at the end of twelve hours with a renewal of the symptoms but a great deal milder in degree; in fact as the popular saying is, the colds were broken up. There is no doubt it is the one remedy for acute cold in the head.

Dr. Atwood.—I will state that this gentleman promised that if there was a return of the trouble in twelve hours he would call at my office, he didn't return and I suppose there has been no return of the trouble. It has been reported here that a physician in New York had operated on an epithelioma of the face and injected a four per cent. solution of hydrochlorate of cocaine; and that the operation which involved the removal of three-quarters of an inch of tissue, did not give the least pain.

Dr. Dean.—I think that the statistics thus far show that most of the failures with samples of this remedy that have been successfully used at other times, have came from a waste or flowing away of the solution; hence, it is advised to apply it with absorptive cotton.

Dr. Rowland.—I should think it would be a very valuable remedy in examining cases of vaginismus and also in treating them. We might in that way be able to get at them without giving pain; true we can give choloroform but cocaine seems to me to be a more useful remedy in the management of those cases.

CONTRIBUTIONS.

ELECTRICITY IN GYNECOLOGICAL PRACTICE.

BY H. B. BUCK, M. D., SPRINGFIELD, ILL.

Read before the Mississippi Valley Medical Society.

Electricity as a general remedy has many strong advocates.

My experience is, that as a general therapeutic agent, unreliability applies to it with as much force as to any on the whole list.

This is no argument against its value, (since in some cases its effects are marvelous), but a strong intimation that in us lies the fault of adaptation.

Formerly its use was entirely empirical, but the researches of later years have established some points for our guidance; while its rationale is yet undetermined, its therapeutic value has reached a demonstration.

While this admission of uncertainty might by some be made the subject of criticism, I have only to answer, that nothing more can be truthfully said of many of our tried medicinal remedies.

We oftentimes use electricity without apparent effect.

What remedy can you cite that never fails?

With some it positively disagrees. What remedy, even among the most universally applicable, that never reveals idiosyncrasies that no human foresight could have predicted?

While we must admit the subtlety of the electric current, so far as its laws have been investigated and demonstrated, nothing in nature is more fixed and unalterable and truer to exact repetition under the same circumstances or conditions.

So prepare your electrodes as to vesicate the skin, and the pole being known that produced the vesicle, you confidently predict the chemical reaction of its contents, invariably acid by the positive, and alkaline by the negative pole.

The unchangeable nature of its laws is no better shown than in its electrolytic action upon binary compounds; the acids being given off at the anode or positive, and the bases at the cathode or negative; the decomposition agreeing with unvarying precision with the combining proportions of each and every one.

From these and other considerations which might be cited, I infer that electricity is reliable, and its results as a remedy will depend upon the diagnostic power of the prescriber. In other words it will fulfill reasonable expectations when applied to those pathological conditions within its scope as a corrective or curative agent.

A goodly percentage of uterine diseases originate in derangement of blood circulation; loss of balance, producing either arterial or venous congestion; this leading to a great variety of secondary evils. This is true in every inflammatory process, whether active or otherwise; acute or sub-acute. It applies to those conditions described in the books as ulcerations, erosions, granulations, cell proliferation, etc.

So called subinvolution, a condition so common, is the outgrowth of abnormal circulation. The faulty nutrition, or, as some assert, the want of muscular tonicity is only a second step in the pathological change. In all these departures from health, exudative products soon follow; the exact character of which will depend largely upon the sthenic or asthenic condition of the patient, the susceptibility of each to morbid processes from similar causes.

Upon these same factors will hinge the degree of departure from health, the character and persistence of symptoms, the nervous sympathies and even the readiness or tardiness of response to treatment.

In vigorous habits, with good nervous tone, and firmness of tissue texture, inflammatory engorgements lead to exudations of such consistency as to impart to the touch a feeling of toughened hardness, when in asthenic subjects, constitutionally lax, wanting in tone and energy, the plastic effusions are less vital; just in proportion to the devitalized condition of the parts invaded, and as might be expected, the touch reveals a softened spongy feel as compared with that previously described.

My experience teaches that the presence of this congestive type of uterine disease accompanied with irritating, acrid secretions so characteristic betokens laxity of fibre, depressed vitality, nervous susceptibility and that successful treatment must include general tonic measures as well as appropriate local applications. It is in this class of malady that electricty proves of marked value.

Loss of tone, consequent sluggishness, engorgement, etc., is the primary cause of disease, the effusions, exudations, and morbid secretions peculiar to each individual case the results. To remove these and restore a balance is the object of treatment.

The value of any plan of procedure will be measured by the aid proffered nature in her efforts at repair.

Be it remembered the wholesale plan of cleansing the Augean Stables is quite inadmissible.

Through functional disturbance the evil came, through functional improvement the cure must be reached. The same steps must be retraced; the process so to speak reversed, and by the infusion of new life, arrest disease and gradually gain the balance in favor of returning health.

Let us for a moment turn attention to the modus operandi of some measures used in treatment, that seem most serviceable and see how their known therapeutic effect comports with these pathological ideas. If right, improvement in the local circulation is of the first importance. Increased activity in absorption will naturally result. Under this

change the character of secretions must undergo some modifications, since they are the direct result of this engorgement, and yet I might add in some respects salutary, for nature in many cases is certainly relieved thereby.

Galvanic electricity by virtue of its stimulant action (especially the intermitting current) contracts the calibre of the overloaded blood-vessels and thereby quickens the circulation; this in turn gives an impetus to absorption (always in abeyance) which must be improved, ere effused products can be removed.

This is its local effect so applied as to stimulate the nerve centres presiding over diseased parts.

Ergot, so largely prescribed, has a similar effect upon the calibre of the blood-vessels, but in not a few instances at the expense of gastric irritation; disturbing and impairing digestion and thus curtailing the strength and vigor so necessary as a helpmeet in the treatment.

With the current the percentage of disagreement is very small; not only can its good offices be brought to bear on the local trouble, but it can be so applied as to energise the whole nervous system—add to the vigor of every organic function.

The digestive organs so far from suffering the brunt of the ergot's evil influence, feel the currents quickening force and the improved assimilation furnishes that increase of recuperative power that turns the balance in favor of the returning health.

The forces of nature are always husbanded by either excluding or correcting every source of irritation. This applies to local troubles whether the result of accident or disease.

In this congestive type of disease when the burdened circulation has not only produced interstitial deposit throughout its muscular structure but has so modified the whole texture of the mucous membrane as to induce the morbid results already enumerated, erosions, granulations, ulcerations, capillary cell-proliferation, etc.,all giving rise to greater or less amounts of acrid secretions, the call for correctives, astringents, disinfectants, and in some instances germicides, is imperative; not only to correct the secretory surface of territory invaded, but to protect surrounding parts from the evil influences of these diseased products.

Happily we have topical remedies that fulfill these indications, and even more, so modify local disease that a certain percentage of sufferers are quite promptly relieved by their appropriate use. These results prove their value. The carbolic acid in varying strength becomes a disinfectant, local anesthetic, germicide,and even escharotic upon the tissues of low ivitality without such loss as to leave a scar upon those more vital; iodine in concentrated form is the prince of resolvents, and anything like a substitute would in my judgment be hard to find. The hot water injections combat irritation and inflammation, and by a constringing effect upon the capillary circulation act in perfect harmony with those just described.

While a certain percentage of sufferers are relieved by the appropiate use of these topical means,in the majority of unselected cases the improvement is so tardy that the patience wears out faster than the disease. Hopelessness creates restlessness and too many in despair abandon the effort.

Hysteria is such a prominent element in this class of disease that any treatment tending to aggravate that symptom is of doubtful utility. What more important than to avoid gastric irritation or any form of disturbance calculated to deepen the gloom surrounding this unfortunate class, and what more potent in dispersing this spectre of darkness and indefinable distress than good digeston; vitalized condition of blood that nourishes the nerve centres and makes them active carriers of that life giving principle so potent in removing the temporary embargo of disease. How to accomplish good and escape evil is the question at issue.

Whether or not it be in part a psychical influence, I will not attempt to decide, but that the use of the current both for its local and constitutional effect imparts a hopefulness that endures till the succesful issue is reached, is under my experience a settled fact.

Admitting the truth of this suspicion if good results are attained even by a placebo, no harm is done and the gynecologist surely has plenty of company from other branches of medical science.

In many cases I use the current fully believing it indispensable; that topical means are the driver's shoulder only applied to the wheel, while it is the harnessed team taking the advantage of the temporary aid.

When we see enlarged glands and tumors of the adenoid type slowly diminish and gradually disappear under its influence topically applied, is it not rational to suppose that plastic interstitial material acting like a foreign substance in the muscular structure, producing constitutional disturbance in proportion to the nervous susceptibility of

each individual case, will be so softened and liquefied as to favor more rapid absorption?

Be it remembered the negative pole invites the flow of alkaline material, the very solvent remedy demanded, and its application accomplishes the treble purpose of disolving adventitious produots, exciting and quickening absorption, and by virtue of its contractile power (its special effect upon involuntary muscles) consolidating diseased strnc tures, giving permanency to the percentage of gain by each and every treatment. In that condition which the book terms superinvolution and which later resnlts in real atrophy, no remedy in my judgment acts as promptly and efficiently as this same current with reversed poles.

In both cases the object is to excite an increased flow of blood, induce a quasi congestion that quickens the nutritive functions.

The positive or stimulant pole properly applied will invite elements conducive to this end.

In local hyperesthesia and in neuralgias of every type the current will not fail the prescriber who has the diagnostic power to jndge in each individual case the exact departure from a normal standard.

Whether the nerve pain is the result of an active cause or want of proper nutrition from deterioration of blood and its natural consequences must be determined ere the current can be satisfactorily applied.

If we use it without snccess, condemnation should be withheld nntil at least we have revised our diagnosis and eliminated every element of doubt as to its correctness.

With medicine we adopt the trite old motto: "If at first yon don't succeed." Why not at least be as liberal with this as with other therapeutic agents.

It has often been remarked in dilating upon nature's resources, that for all the ills to which humanity is incident she provides a remedy.

In the presence still of unmanageable disease the inference is that human wisdom weighed in the balance is found wanting.

If there is a grain of trnth in the above, since nothing in nature is so wide-spread and nniversal it wonld seem very strange if electricity should fail to be recognized as a remedy for hnman ills.

Recall that summer day when in the midst of gathering vapor the depressing inflnence of the snltry air was the subject of nniversal remark. The gathering clouds took shape and form and the play of electric flashes, athwart the sky betokened opposite electrical states, seeking equilibrium. In a twinkle, even in the absence of a rain shower, the atmosphere loses its oppressiveness and the reviving, stimulating change is recognized by every living creature.

Whatever argument might be raised as to the combined causes operating to produce this rapid and health giving change, I shall only contend that electricity plays a very important role.

Every practitioner has favorite remedies based upon individual experience in adapting them to pathological conditions.

No one, even after failure, can consistently decry such remedies without the requisite experience in adapting them.

I bespeak a favorable consideration for galvanic electricity until at least an honest and intelligent experience fails to establish its value.

Do not for a moment conclude that I make electricity a universal remedy in gynecological practice. Did the limit of this paper permit I might call attention to many conditions, where at best it could be only a palliative and then only as associated with the proper operative procedure.

I will add in conclnsion that since uterine disease is so prolific in sympathetic disturbance, affecting the whole frame-work of the sufferer and especially curtailing the assimilative fnnctions, the scope for its use as a general tonic to reinforce other important curative measures is almost without limit and in my jndgment deserves at yonr hands thoughtfulconsideration .

ITEMS.

—The Infusion of Salt-Solution.—Dr. Fux, of Laibach, reports the case of a young man, twenty-one years of age, who stuck a thorn into his left hand. The wound did not heal, and gangrene set in, with profuse hemorrhage from the affected part. The gangrenous portion was removed, but the patient became so exhansted from the parenchymatous hemorrhage that he was in the most desperate condition. Fux injected about seven and a half fluid ounces of a six (?) per cent. solution of common salt into a vein of the right arm by means of an irrigator. There was an immediate improvement in the patient's condition, and he recovered in a satisfactory manner.—Centralbl. f. Klin. Med., September 27, 1884.

—The friends and pupils of the late Professor Cohnheim are arranging to collect funds for the purpose of erecting a monument to the memory of the deceased pathologist.